

County of Orange California

COMMUNICABLE DISEASE SUMMARY

2000



Issued July 2002



COUNTY OF ORANGE HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES

JULIETTE A. POULSON, RN, MN
Director

MARK B. HORTON, MD, MSPH
Deputy Agency Director/Health Officer

MAILING ADDRESS:
405 W 5th STREET, 7th Floor
SANTA ANA, CA 92701

TELEPHONE: (714) 834-3155

FAX: (714) 834-5506

E-MAIL: mhorton@hca.co.orange.ca.us

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Dear Colleague,

We are pleased to present the *County of Orange Communicable Disease Summary 2000*. Our hope is that the Summary will be an informative reference regarding recent trends and highlights for reportable communicable diseases within the County. The following findings presented in the Summary are of particular interest:

When compared to the pre-vaccine era, full implementation of childhood vaccination has resulted in more than 90% reductions in vaccine-preventable diseases and the near elimination of polio and diphtheria. Reported cases of *Haemophilus influenzae* Type B, measles, mumps, rubella, congenital rubella and tetanus remain low; however, pertussis case reports have been more variable, especially in the infant population.

Sexually transmitted infections remain a public health concern. Chlamydial infection continues to be the most common reportable communicable disease in Orange County, California, and the United States. Adolescents aged 15-19 years and young adults aged 20-24 years have the highest rates of chlamydial infection. Although still at historically low levels, the gonococcal infection and early syphilis rates in Orange County increased from 1996 to 2000. The emergence of drug resistant gonococcal infections is of particular concern.

While the reported number of tuberculosis (TB) and acquired immune deficiency syndrome (AIDS) cases remain stable, the estimated number of persons living with human immunodeficiency virus (HIV) continues to rise. Mandatory HIV positive test reporting in California beginning July 1, 2002 will be an important step in estimating actual HIV morbidity levels in the State, and the County.

Reported chronic hepatitis C infections continue to increase, reflecting increased testing for the virus and reporting by healthcare providers.

We hope you find this report interesting and valuable. Questions regarding this report should be directed to Epidemiology and Assessment at (714) 834-8180.

Sincerely,

Mark B. Horton, MD, MSPH
Director of Public Health/Health Officer

County of Orange Communicable Disease Summary 2000

Prepared By
County of Orange Health Care Agency

DISEASE CONTROL AND EPIDEMIOLOGY DIVISION

Hildy Meyers, MD, MPH
Medical Director

Michael Carson, MS

Debbie Chitty, RN, BSN

Brit Christofferson, MPH

Sue Hall, RN, BSN

Georgiana Hart, RN, BSN

Kathy Higgins, MPH

Nga Huynh, RN, BSN

Mary McDonald, RN, BSN

Anna Sutherland, RN

Cecile Truong, RN, BSN

Mary Young

County of Orange Communicable Disease Summary 2000

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County of Orange Communicable Disease Summary 2000

Introduction

The *County of Orange Communicable Disease Summary 2000* is a compilation of calendar year 2000 communicable disease (morbidity) data for County of Orange residents. Review of morbidity records is a primary means for monitoring and evaluating the health status of County residents. Comparison of local rates to state and national rates as well as the examination of the five-year trends in these data contribute to a general overview of community health.

The *Summary* includes communicable diseases or conditions with 5 or more reported cases in calendar year 1999 and/or 2000. Secondly, vaccine-preventable diseases with less than 5 cases in 2000 are reviewed. Finally, the list of reportable diseases and the Confidential Morbidity Report form are provided as a reference.

The communicable diseases or conditions data are based on reports submitted under Title 17, California Code of Regulations (CCR), Section 2500, and et seq. This code requires the reporting of communicable diseases to the local health department by health care providers (physician, physician assistant, veterinarian, podiatrist, school nurse, infection control practitioner, medical examiner, coroner or dentist). Persons in charge of a public or private school, kindergarten, boarding school or day care must also report anyone suspected of having a communicable disease to the local health department.

Various sources were used to compile this summary. The population estimates are from the State of California, Department of Finance. The county morbidity data are obtained from the Automated Vital Statistics System (AVSS) and the County of Orange AIDS Case Registry. State case rates are provisional, unpublished data from the State of California Department of Health Services, Division of Communicable Disease Control, Surveillance and Statistics Section, Sexually Transmitted Disease Control Branch, and Tuberculosis Control Branch. United States rates are from the Center for Disease Control and Prevention's *Notice to Readers: Final 2000 Reports of Notifiable Diseases (MMWR 50(33);712)*, and *Summary of Notifiable Diseases, United States – 2000 (MMWR 49(53);1-102)*. Year 2000 and 2010 objectives are from the U.S. Department of Health and Human Services, National Center for Health Statistics' *Healthy People 2000 Final Review* and *Healthy People 2010* (2nd edition) publications, respectively.

The *County of Orange Communicable Disease Summary 1998* and *Case and Case Rates for Reportable Diseases* for 1991 – 2001 are also available on the County of Orange website at <http://www.ochealthinfo.com/epi/statistics.htm>.

If you have questions or comments regarding the data presented in this summary, or for more information on disease reporting, please call County of Orange Health Care Agency, Epidemiology & Assessment at (714) 834-8180.

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Note: Changes in rates for previously published 1991 to 2000 data has occurred as a result of revised population estimates based on the 2000 Census data (State of California, Department of Finance, *Intercensal Estimates of the Population of California: State and Counties 1990-2000 July, Revised Report I 90-00 July*. Sacramento, California, January 2002. Found at <http://www.dof.ca.gov/HTML/DEMOGRAP/repndat.htm>).

County of Orange Communicable Disease Summary 2000

Cases and Rates (per 100,000 population) of Reportable Diseases County of Orange, 1991 - 2000

YEAR MID-YEAR POPULATION*	1991 2,458,800		1992 2,511,800		1993 2,550,400		1994 2,575,700		1995 2,604,500		1996 2,646,100		1997 2,699,600		1998 2,749,500		1999 2,802,800		2000 2,856,800	
DISEASE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
AIDS	458	18.6	450	17.9	748	29.3	517	20.1	546	21.0	429	16.2	276	10.2	302	11.0	307	11.0	322	11.3
Amebiasis	86	3.5	125	5.0	98	3.8	56	2.2	51	2.0	36	1.4	41	1.5	26	0.9	19	0.7	18	0.6
Botulism	2	0.1	2	0.1	1	0.0	1	0.0	1	0.0	1	0.0	2	0.1	4	0.1	7	0.2	2	0.1
Botulism-Infant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Brucellosis	3	0.1	3	0.1	1	0.0	2	0.1	5	0.2	2	0.1	1	0.0	0	0.0	4	0.1	0	0.0
Campylobacteriosis	316	12.9	307	12.2	354	13.9	348	13.5	442	17.0	455	17.2	403	14.9	284	10.3	246	8.8	314	11.0
Chancroid	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0
Chlamydial Infection	3148	128.0	3223	128.3	4197	164.6	4563	177.2	3303	126.8	2693	101.8	3290	121.9	3497	127.2	4893	174.6	4575	160.1
Cholera	0	0.0	7	0.3	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0
Coccidioidomycosis	11	0.4	44	1.8	35	1.4	19	0.7	16	0.6	20	0.8	15	0.6	11	0.4	26	0.9	16	0.6
Conjunctivitis, Newborn	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	0.3	0	0.0
Cryptosporidiosis	16	0.7	19	0.8	21	0.8	22	0.9	28	1.1	11	0.4	13	0.5	21	0.8	8	0.3	1	0.0
Cysticercosis	37	1.5	24	1.0	27	1.1	25	1.0	15	0.6	14	0.5	21	0.8	15	0.5	5	0.2	6	0.2
Dengue	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0
Echinococcosis (Hydatid Disease)	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
Encephalitis, Total	11	0.4	11	0.4	14	0.5	11	0.4	3	0.1	7	0.3	6	0.2	10	0.4	12	0.4	6	0.2
Encephalitis, Primary	9	0.4	8	0.3	12	0.5	8	0.3	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Encephalitis, Post Infection	2	0.1	3	0.1	2	0.1	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Encephalitis, Unknown	NA	NA	NA	NA	NA	NA	NA	NA	2	0.1	4	0.2	4	0.1	10	0.4	3	0.1	6	0.2
Encephalitis, Viral	NA	NA	NA	NA	NA	NA	NA	NA	0	0.0	2	0.1	2	0.1	0	0.0	9	0.3	0	0.0
Escherichia Coli O157:H7 Infection	NA	NA	NA	NA	7	0.3	3	0.1	6	0.2	6	0.2	6	0.2	11	0.4	11	0.4	30	1.1
Foodborne Disease Outbreaks	2	0.1	4	0.2	3	0.1	6	0.2	9	0.3	11	0.4	12	0.4	11	0.4	23	0.8	15	0.5
Giardiasis	497	20.2	670	26.7	684	26.8	421	16.3	391	15.0	365	13.8	321	11.9	272	9.9	231	8.2	216	7.6
Gonococcal Infection	958	39.0	1104	44.0	1095	42.9	879	34.1	717	27.5	421	15.9	438	16.2	521	18.9	572	20.4	566	19.8
Gonococcal Infection with PPNG	165	6.7	116	4.6	67	2.6	57	2.2	24	0.9	14	0.5	23	0.9	5	0.2	0	0.0	2	0.1
Haemophilus influenzae	18	0.7	15	0.6	11	0.4	6	0.2	11	0.4	15	0.6	13	0.5	6	0.2	4	0.1	5	0.2
Hemolytic Uremic Syndrome	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	2	0.1
Hepatitis A	304	12.4	280	11.1	414	16.2	380	14.8	438	16.8	319	12.1	348	12.9	228	8.3	267	9.5	245	8.6
Hepatitis B	116	4.7	108	4.3	73	2.9	62	2.4	83	3.2	69	2.6	73	2.7	90	3.3	55	2.0	58	2.0
Hepatitis B, Chronic	689	28.0	1467	58.4	1677	65.8	1244	48.3	1314	50.5	1459	55.1	1474	54.6	1692	61.5	1545	55.1	1780	62.3
Hepatitis C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	0.4	13	0.5	4	0.1
Hepatitis C, Chronic	0	0.0	38	1.5	57	2.2	26	1.0	NA	NA	317	12.0	921	34.1	1751	63.7	2477	88.4	2715	95.0
Hepatitis D (Delta)	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	3	0.1	3	0.1	0	0.0
Hepatitis Non-A, Non-B	59	2.4	40	1.6	48	1.9	17	0.7	23	0.9	16	0.6	14	0.5	4	0.1	3	0.1	2	0.1
Hepatitis, Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	0.2	10	0.4	21	0.7	13	0.5
Hepatitis, Unspecified	23	0.9	29	1.2	40	1.6	22	0.9	22	0.8	18	0.7	17	0.6	11	0.4	20	0.7	6	0.2
Kawasaki Syndrome	17	0.7	21	0.8	23	0.9	20	0.8	13	0.5	14	0.5	19	0.7	16	0.6	18	0.6	17	0.6
Legionellosis	9	0.4	4	0.2	6	0.2	3	0.1	7	0.3	3	0.1	3	0.1	5	0.2	8	0.3	4	0.1
Leprosy (Hansen's Disease)	1	0.0	7	0.3	6	0.2	0	0.0	3	0.1	14	0.5	11	0.4	4	0.1	1	0.0	2	0.1
Leptospirosis	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
Listeriosis	17	0.7	15	0.6	9	0.4	11	0.4	10	0.4	9	0.3	12	0.4	12	0.4	9	0.3	13	0.5
Lyme Disease	8	0.3	3	0.1	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	3	0.1
Malaria	24	1.0	14	0.6	12	0.5	16	0.6	10	0.4	20	0.8	18	0.7	16	0.6	13	0.5	15	0.5
Measles (Rubeola)	290	11.8	13	0.5	1	0.0	1	0.0	8	0.3	4	0.2	4	0.1	2	0.1	4	0.1	2	0.1
Meningitis, Total	254	10.3	790	31.5	454	17.8	287	11.1	240	9.2	282	10.7	356	13.2	654	23.8	303	10.8	331	11.6
Meningitis, Bacterial	42	1.7	48	1.9	48	1.9	36	1.4	27	1.0	51	1.9	42	1.6	37	1.3	38	1.4	45	1.6
Meningitis, Fungal	5	0.2	6	0.2	10	0.4	5	0.2	13	0.5	6	0.2	8	0.3	11	0.4	12	0.4	6	0.2
Meningitis, Parasitic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Unknown	9	0.4	18	0.7	4	0.2	5	0.2	17	0.7	20	0.8	31	1.1	20	0.7	15	0.5	18	0.6
Meningitis, Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Meningitis, Viral (Aseptic)	198	8.1	718	28.6	392	15.4	241	9.4	183	7.0	205	7.7	275	10.2	586	21.3	238	8.5	262	9.2

*Source: State of California, Department of Finance, July Intercensal Population Estimates for California Counties 1990-2000

NA=data not available for count year

County of Orange Communicable Disease Summary 2000

Cases and Rates (per 100,000 population) of Reportable Diseases County of Orange, 1991 - 2000

YEAR MID-YEAR POPULATION*	1991 2,458,800		1992 2,511,800		1993 2,550,400		1994 2,575,700		1995 2,604,500		1996 2,646,100		1997 2,699,600		1998 2,749,500		1999 2,802,800		2000 2,856,800	
DISEASE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
Meningococcal Disease, Total	16	0.7	35	1.4	38	1.5	22	0.9	20	0.8	34	1.3	23	0.9	23	0.8	16	0.6	22	0.8
Meningococcal Meningitis	7	0.3	25	1.0	22	0.9	9	0.3	12	0.5	17	0.6	8	0.3	6	0.2	4	0.1	6	0.2
Meningococcal Infection, Other Invasive	9	0.4	10	0.4	16	0.6	13	0.5	1	0.0	0	0.0	1	0.0	1	0.0	2	0.1	1	0.0
Meningococcemia	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3	17	0.6	14	0.5	16	0.6	10	0.4	15	0.5
Mumps	34	1.4	12	0.5	11	0.4	17	0.7	10	0.4	14	0.5	11	0.4	10	0.4	4	0.1	5	0.2
Non-Gonococcal Urethritis	2190	89.1	1507	60.0	1246	48.9	1365	53.0	1265	48.6	998	37.7	1014	37.6	665	24.2	483	17.2	646	22.6
Pelvic Inflammatory Disease	95	3.9	78	3.1	59	2.3	48	1.9	48	1.8	32	1.2	62	2.3	59	2.1	23	0.8	68	2.4
Pertussis (Whooping Cough)	9	0.4	27	1.1	33	1.3	20	0.8	17	0.7	37	1.4	12	0.4	13	0.5	51	1.8	18	0.6
Psittacosis	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0
Q-fever	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Rat Bite Fever	NA	NA	NA	NA	NA	NA	NA	NA	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1
Relapsing Fever	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Reye Syndrome	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rheumatic Fever, Acute	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Rocky Mountain Spotted Fever	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rubella (German Measles)	15	0.6	3	0.1	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Rubella Syndrome, Congenital	4	0.2	1	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Salmonellosis (other than Typhoid Fever)	324	13.2	395	15.7	440	17.3	637	24.7	665	25.5	568	21.5	551	20.4	334	12.1	309	11.0	353	12.4
Schistosomal Dermatitis	0	0.0	0	0.0	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.1
Scombroid Fish Poisoning	0	0.0	0	0.0	0	0.0	0	0.0	NA	NA	0	0.0	4	0.1	5	0.2	2	0.1	4	0.1
Shigellosis, TOTAL	286	11.6	342	13.6	287	11.3	312	12.1	455	17.5	321	12.1	212	7.9	202	7.3	180	6.4	197	6.9
Shigella A - Dysenteriae	NA	NA	NA	NA	NA	NA	NA	NA	3	0.1	4	0.2	4	0.1	2	0.1	2	0.1	2	0.1
Shigella B - Flexneri	NA	NA	NA	NA	NA	NA	NA	NA	138	5.3	128	4.8	70	2.6	61	2.2	45	1.6	55	1.9
Shigella C - Boydii	NA	NA	NA	NA	NA	NA	NA	NA	11	0.4	16	0.6	11	0.4	5	0.2	10	0.4	3	0.1
Shigella D - Sonnei	NA	NA	NA	NA	NA	NA	NA	NA	302	11.6	173	6.5	125	4.6	133	4.8	123	4.4	137	4.8
Shigella, Species Unknown	NA	NA	NA	NA	NA	NA	NA	NA	1	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0
Streptococcal Infection, Invasive Group A	0	0.0	0	0.0	0	0.0	92	3.6	46	1.8	26	1.0	62	2.3	63	2.3	31	1.1	33	1.2
Syphilis, TOTAL, All Stages	387	15.7	345	13.7	417	16.4	317	12.3	242	9.3	226	8.5	198	7.3	178	6.5	236	8.4	215	7.5
Syphilis, Congenital	16	0.7	15	0.6	17	0.7	17	0.7	23	0.9	15	0.6	19	0.7	8	0.3	4	0.1	10	0.4
Syphilis, Early Latent	83	3.4	66	2.6	55	2.2	46	1.8	33	1.3	22	0.8	11	0.4	11	0.4	33	1.2	19	0.7
Syphilis, Latent	NA	NA	15	0.6	11	0.4	15	0.6	8	0.3	10	0.4	9	0.3	0	0.0	5	0.2	5	0.2
Syphilis, Late Latent	218	8.9	196	7.8	318	12.5	213	8.3	161	6.2	156	5.9	150	5.6	135	4.9	157	5.6	152	5.3
Syphilis, Primary	40	1.6	31	1.2	9	0.4	11	0.4	8	0.3	8	0.3	2	0.1	13	0.5	17	0.6	7	0.2
Syphilis, Secondary	30	1.2	22	0.9	7	0.3	12	0.5	7	0.3	11	0.4	5	0.2	11	0.4	18	0.6	21	0.7
Syphilis, Other	0	0.0	0	0.0	0	0.0	3	0.1	2	0.1	4	0.2	2	0.1	0	0.0	2	0.1	1	0.0
Taeniasis	5	0.2	5	0.2	6	0.2	3	0.1	3	0.1	2	0.1	1	0.0	0	0.0	1	0.0	0	0.0
Tetanus	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0
Toxic Shock Syndrome	1	0.0	0	0.0	3	0.1	2	0.1	0	0.0	2	0.1	2	0.1	2	0.1	0	0.0	4	0.1
Toxoplasmosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0
Trichinosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tuberculosis, Total	305	12.4	411	16.4	431	16.9	368	14.3	336	12.9	273	10.3	330	12.2	298	10.8	246	8.8	246	8.6
Pulmonary TB	240	9.8	316	12.6	341	13.4	283	11.0	269	10.3	210	7.9	247	9.1	197	7.2	169	6.0	174	6.1
Pulm & Extrapulm TB	14	0.6	14	0.6	12	0.5	13	0.5	6	0.2	10	0.4	26	1.0	72	2.6	23	0.8	25	0.9
Extrapulmonary TB	51	2.1	81	3.2	78	3.1	72	2.8	61	2.3	53	2.0	57	2.1	29	1.1	54	1.9	47	1.6
Tularemia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Typhoid Fever, Carrier	2	0.1	1	0.0	3	0.1	2	0.1	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0
Typhoid Fever, Case	11	0.4	7	0.3	4	0.2	10	0.4	7	0.3	9	0.3	4	0.1	8	0.3	1	0.0	3	0.1
Typhus Fever	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Vibrio Infections	2	0.1	2	0.1	5	0.2	3	0.1	2	0.1	2	0.1	0	0.0	4	0.1	6	0.2	6	0.2
Waterborne Outbreaks	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0
Yersiniosis	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	10	0.4	5	0.2	11	0.4	4	0.1	8	0.3

*Source: State of California, Department of Finance, July Intercensal Population Estimates for California Counties 1990-2000

NA=data not available for count year

County of Orange Communicable Disease Summary 2000

Vaccine-Preventable Diseases

During the period covered by this report, routine childhood vaccinations were recommended for diphtheria, *Haemophilus influenzae* type B¹ (Hib), hepatitis A², hepatitis B³, measles, mumps, pertussis (whooping cough), pneumococcal disease⁴, polio, rubella, tetanus, and varicella (chickenpox)⁵.

When compared to the pre-vaccine era, full implementation of childhood vaccination has resulted in more than 90% reductions in these diseases⁶ and the near elimination of polio and diphtheria.

All of the vaccine-preventable diseases for which routine childhood immunizations are available are reportable diseases in California except for pneumococcal disease and varicella, which are, therefore, not included in this report.

Diphtheria

The last case of diphtheria in Orange County was reported in 1974. 2 cases were reported in that year.

Haemophilus influenzae type B

See page 23.

Hepatitis A

See page 24.

Hepatitis B

See page 25.

Measles

The most recent major epidemic of measles in Orange County, and the United States, occurred from 1988 to 1991. Two Orange County children under 1 year of age, and therefore too young to have been immunized, died due to measles during the epidemic. Prior to that time, from 1981 to 1987, an average of 14 cases of measles was reported from Orange County each year. The number and rate of measles cases from 1988 through 2000 are shown in the table.

Of the 6 cases reported in 1999 and 2000, 3 (50%) were adults, 2 (33.3%) were under 1 year, and 1 (16.7%) was 3 years of age. Regarding the sources of exposure among these cases, 3 had an unknown exposure, 1 had exposure to a known reported case, 1 was exposed in another state, and 1 was exposed outside the U.S. Two of the 6 cases from 1999 and 2000 were too young to receive MMR. One case received MMR 3 days after their first birthday. The remaining 3 cases' vaccine history is unknown.

¹ Recommended for infants as part of routine immunizations starting in January 1991.

² Recommended for all California children between the ages of 2 years – 18 years, as a part of routine immunizations starting in 2000.

³ Recommended for infants as part of routine immunizations starting November 1991.

⁴ In February 2000, a 7-valent pneumococcal polysaccharide-protein conjugate vaccine was licensed for use among infants and young children. In October 2000, ACIP recommended that the vaccine be used for all children ages 2 months – 23 months and for children ages 24 months – 59 months who are at increased risk for pneumococcal disease.

⁵ Recommended for children as part of routine immunizations starting July 1996.

⁶ Excluding hepatitis B and varicella, which have not yet been fully implemented.

County of Orange Communicable Disease Summary 2000

Number and Rate of Measles Cases by Year, 1988-2000*

Year	Number of measles cases	Rate per 100,000 population
1988	109	4.7
1989	389	16.4
1990	679	28.2
1991	290	11.8
1992	13	0.5
1993	1	<0.1
1994	1	<0.1
1995	8	0.3
1996	4	0.2
1997	4	0.1
1998	2	0.1
1999	4	0.1
2000	2	0.1

The recommendation for a routine second dose of measles vaccine was made in December 1989. California began requiring a second dose of a measles-containing vaccine (usually given as measles, mumps, and rubella combined vaccine) for kindergarten entry in August 1997. As of July 1999, California requires that children entering 7th grade have 2 doses of a measles-containing vaccine.

All reported suspect measles cases are investigated, and laboratory confirmation is attempted for every case. Viral sequencing (midstream urine and nasopharyngeal exudates are the preferred specimens) can help determine the source of the measles virus. In 2000, 86 measles cases were reported in the United States, the lowest number on record. Of these, 26 (30.2%) were international importations, including U.S. residents who contracted their infection while in other countries, their contacts in the U.S. who developed measles, and/or cases with an imported strain of measles virus. The number of confirmed measles cases in the Western Hemisphere in 2000 was also lower than ever recorded at 1,737 total cases, drawing closer to the goal of measles elimination.

Mumps

See page 38.

Pertussis (whooping cough)

See page 41.

Polio

The last case of paralytic polio in Orange County was reported in 1966. In September 1985, the Pan-American Health Organization adopted the goal of eradicating polio from the Americas. The last case of naturally occurring polio in the Americas was detected in 1991 in Peru. Since 1979, the only cases of polio reported in the United States have been associated with use of the live oral poliovirus vaccine (OPV). In 1997, the Advisory Committee on Immunization Practices (ACIP) recommended a sequential schedule of inactivated poliovirus vaccine (IPV) followed by OPV. In July 1999, ACIP recommended that IPV be used exclusively in the U. S. beginning in 2000.

*Revised historical figures for 1988 - 1990 measles cases and case rates.

County of Orange Communicable Disease Summary 2000

Rubella and Congenital Rubella Syndrome

An estimated 30-50% of rubella cases are subclinical, and, even when symptoms do occur, the illness is usually mild. Rubella is sometimes misdiagnosed as measles, scarlet fever, or other rash illnesses. All of these factors lead to under-diagnosis and under-reporting of rubella. The most serious outcome of rubella is infection during a woman's pregnancy, resulting in congenital infection of the fetus.

The most recent increase in rubella occurred in 1990 when 78 cases were reported (rate of 3.2 per 100,000 population); Of the 78 cases, 45 occurred as part of an outbreak in the Orange County jail, primarily among male inmates. Following the increase in rubella in 1990, a study of congenital rubella syndrome (CRS) cases was done to determine if there had been missed opportunities for prevention through prior vaccination of the mother. The 6 Orange County cases (1 reported in 1990, 4 in 1991 and 1 in 1992) that were included in the study had few missed opportunities. Most were not married, had been born and gone to school in Mexico, and 4 of the 6 had no prior pregnancy. In one instance, testing and vaccination following a previous ectopic pregnancy could have prevented 1 case of CRS. The number and rate of rubella cases from 1990 through 2000 are shown in the table.

Number and Rate of Rubella and CRS Cases by Year, 1990-2000

Year	Number of rubella cases	Rate per 100,000 population	Number of CRS cases	Rate per 100,000 population
1990	78	3.2	1	<0.1
1991	15	0.6	4	0.2
1992	3	0.1	1	0.0
1993	1	<0.1	2	0.1
1994	1	<0.1	1	<0.1
1995	1	<0.1	0	0.0
1996	0	0.0	0	0.0
1997	0	0.0	0	0.0
1998	0	0.0	0	0.0
1999	0	0.0	0	0.0
2000	1	<0.1	1	<0.1

Since most measles vaccine is given in combination with rubella and mumps vaccines (MMR), the recommendation for a routine second dose of measles vaccine for children, made in December 1989, has had the effect of providing a second dose of rubella vaccine as well.

Tetanus

One tetanus case was reported in 1998 and 1999, respectively; no cases were reported in 2000. The few cases reported in recent years in Orange County have involved mostly male Hispanic adults with unknown or no history of immunization. California has averaged 10 cases of tetanus per year in the last five years, the vast majority in adult males.

Since the last quarter of the year 2000, there has been a shortage of tetanus and diphtheria toxoids (Td) and tetanus toxoid (TT) resulting from decreased production of these vaccines by the two U.S. manufacturers. Recommendations outlining priorities for use of the limited supply of Td and TT have been published (MMWR, May 25, 2001; 50(20):418 and 427).

AIDS

Rate per 100,000 population:	1996	1997	1998	1999	2000
Orange County	16.2	10.2	11.0	11.0	11.3
California	28.2	20.6	17.3	16.0	14.0
United States	25.2	21.9	17.2	16.7	15.0

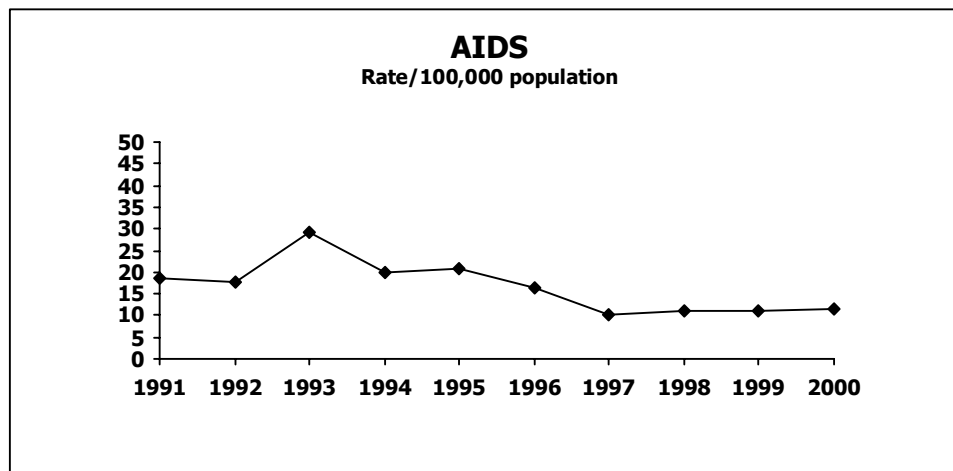
Year 2000 Objective NA
Year 2010 Objective 1.0 new case/100,000 population

- From 1982 through 2000, a total of 5,746 Orange County residents with AIDS had been reported.
- 322 cases were reported in 2000, a 5% increase over the 307 cases reported in 1999. The increases observed over the past three years reflect improved surveillance efforts with active surveillance expanded to new sites.
- In the last decade, AIDS case rates per 100,000 have shown significant increases among non-White males and among females.

<u>Adult/Adolescent rates</u>	<u>1990</u>	<u>2000</u>
White males	42.3	21.4
African-American males	66.5	82.1
Latino males	20.3	40.1
Females	1.4	3.1

- As of December 2000, an estimated 2,680 Orange County residents were living with AIDS, a 50% increase over the number living just five years ago.
- An estimated 6,800 Orange County residents are currently living with HIV/AIDS, less than one-half of one percent of the adult/adolescent population (0.31%).

Orange County	1996	1997	1998	1999	2000
Total Cases	429	276	302	307	322
Gender					
Male	380	242	270	267	287
Female	49	34	32	40	35
Unknown	0	0	0	0	0
Ethnicity					
White	271	145	158	146	150
Black	20	18	18	25	17
Hispanic	121	102	116	129	143
Southeast Asian	10	7	7	3	5
Other Asian	2	3	0	1	2
Other/Unknown	5	1	3	3	5
Age					
Under 1 year	0	1	0	1	1
1-4	1	0	2	1	2
5-9	0	0	2	0	0
10-14	0	0	0	1	0
15-19	0	2	2	1	2
20-24	12	4	9	13	18
25-34	157	106	110	94	97
35-44	166	111	114	135	125
45-54	70	36	50	41	59
55-64	19	11	9	16	13
65 & over	4	5	4	4	5
Unknown	0	0	0	0	0



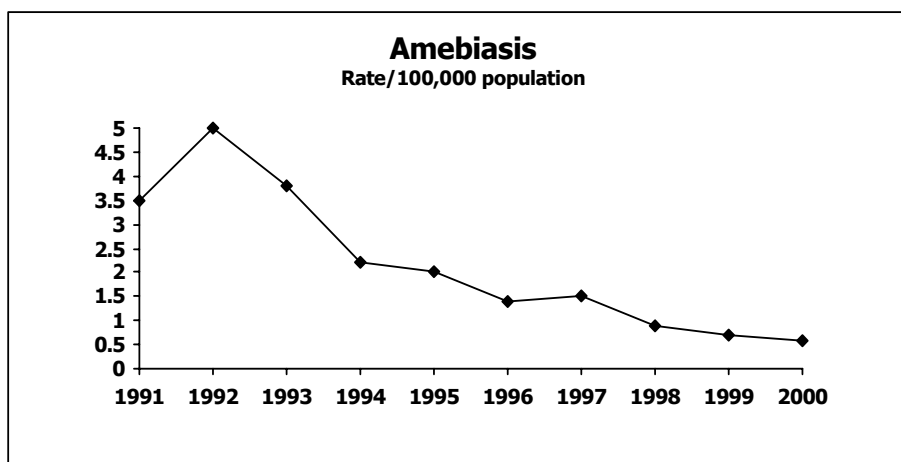
Amebiasis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.4	1.5	0.9	0.7	0.6
California	2.5	2.8	2.1	1.8	1.5
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- Reported cases of amebiasis have been declining since 1992 when 125 cases (5.0/100,000) were reported.
- At least 2 factors have contributed to the decline in cases:
 - 1) The number of officially arriving refugees, who are routinely screened for parasites, has decreased from more than 6,000 in the early 1990s to under 600 in 2000.
 - 2) In February of 1998, the Orange County Public Health Laboratory instituted testing to differentiate between *Entamoeba histolytica* and *E. dispar*. This latter species is microscopically identical to *E. histolytica* but is not pathogenic. It is the species most often found in asymptomatic cyst passers.

Orange County	1996	1997	1998	1999	2000
Total Cases	36	41	26	19	18
Gender					
Male	26	25	14	10	13
Female	10	16	12	9	5
Unknown	0	0	0	0	0
Ethnicity					
White	6	5	4	4	4
Black	3	0	0	1	1
Hispanic	11	16	15	11	7
Southeast Asian	15	16	2	0	2
Other Asian	1	1	1	1	2
Other/Unknown	0	3	4	2	2
Age					
Under 1 year	0	0	0	0	0
1-4	4	1	1	0	3
5-9	2	3	2	0	2
10-14	2	0	0	0	0
15-19	1	4	2	0	1
20-24	4	5	4	1	1
25-34	4	10	5	3	3
35-44	6	9	6	0	3
45-54	9	4	2	4	1
55-64	4	4	3	1	1
65 & over	0	1	1	2	3
Unknown	0	0	0	0	0



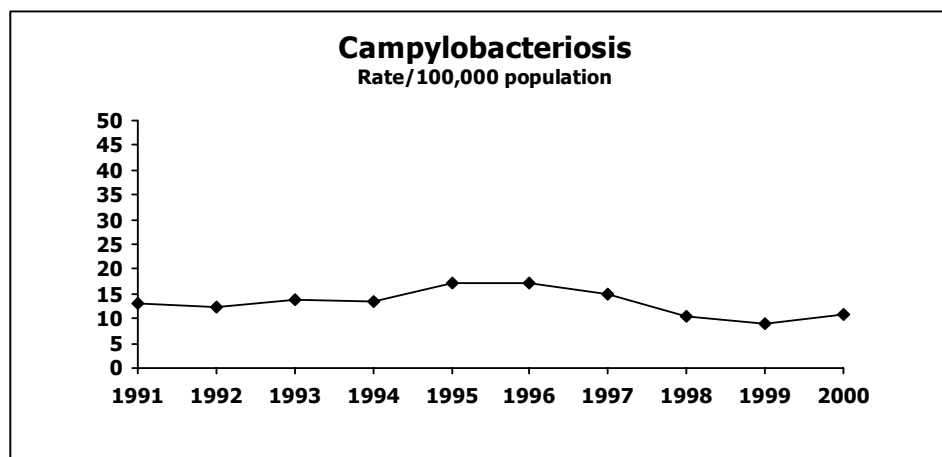
Campylobacteriosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	17.2	14.9	10.3	8.8	11.0
California	25.4	23.3	18.1	16.0	19.0
United States	NA	NA	NA	NA	NA

Year 2000 Objective	25.0/100,000
Year 2010 Objective	12.3/100,000

- In 1999, reported cases of campylobacteriosis in Orange County dropped to their lowest rate since 1981.
- Most cases are sporadic, with a summertime peak in incidence.
- Serious sequelae can occur, including Guillain-Barré Syndrome and reactive arthritis.
- Poultry, meat and raw milk are the most common food sources of *Campylobacter* for humans. Waterborne disease has also been reported.
- Major risk factors include handling raw poultry and eating undercooked poultry. Additional risk factors are contact with dogs and cats, especially juvenile animals with diarrhea.

Orange County	1996	1997	1998	1999	2000
Total Cases	455	403	284	246	314
Gender					
Male	234	224	152	145	184
Female	220	179	132	101	130
Unknown	1	0	0	0	0
Ethnicity					
White	117	91	61	70	67
Black	1	2	3	1	0
Hispanic	88	64	41	33	22
Southeast Asian	5	3	5	3	8
Other Asian	10	9	11	6	13
Other/Unknown	234	234	163	133	204
Age					
Under 1 year	17	9	4	7	5
1-4	52	53	35	29	46
5-9	29	32	33	23	27
10-14	22	11	9	13	9
15-19	15	14	11	10	10
20-24	29	17	21	14	28
25-34	97	74	43	41	51
35-44	80	71	39	43	46
45-54	51	51	40	23	37
55-64	25	19	24	20	22
65 & over	35	51	25	23	33
Unknown	3	1	0	0	0



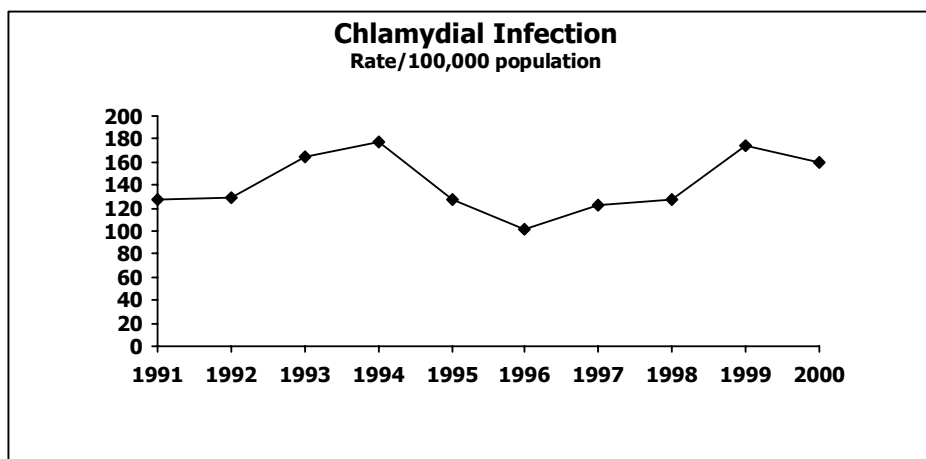
Chlamydial Infection

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	101.8	121.9	127.2	174.6	160.1
California	189.7	208.0	228.8	250.6	281.6
United States	188.1	196.8	236.6	254.1	257.8

Year 2000 Objective NA
Year 2010 Objective NA

- Genital *Chlamydia trachomatis* infection is the most common reportable infection in Orange County and the United States.
- Adolescents aged 15-19 and young adults aged 20-24 years have the highest rates of chlamydial infection (637.3 and 925.6, respectively).
- An estimated 70-80% of women and 50% of men with chlamydia have no noticeable symptoms of infection and thus are unlikely to seek health care.
- After chlamydia became reportable in California in March 1989, the number of reported cases in Orange County rose rapidly.
- New, highly sensitive, non-invasive (urine-based) tests have resulted in an increase in the number of cases detected and reported.

Orange County	1996	1997	1998	1999	2000
Total Cases	2693	3290	3497	4893	4575
Gender					
Male	465	647	803	1020	1065
Female	2219	2615	2680	3840	3415
Unknown	9	28	14	33	95
Ethnicity					
White	614	246	299	452	376
Black	57	71	87	96	74
Hispanic	1403	784	944	2713	2174
Southeast Asian	34	11	20	5	16
Other Asian	91	86	113	278	193
Other/Unknown	494	2092	2034	1332	1742
Age					
Under 1 year	7	17	9	3	3
1-4	1	1	1	0	0
5-9	0	2	2	1	2
10-14	35	50	52	59	33
15-19	784	965	951	1405	1112
20-24	872	1100	1142	1630	1499
25-34	739	846	939	1290	1381
35-44	151	196	233	286	348
45-54	23	33	41	41	61
55-64	8	7	8	5	12
65 & over	6	7	13	3	25
Unknown	67	66	106	170	99



Coccidioidomycosis

Rate per 100,000 population:	1996	1997	1998	1999	2000
Orange County	0.8	0.6	0.4	0.9	0.6
California	2.9	2.1	2.2	2.8	2.4
United States	NA	NA	NA	NA	NA

Year 2000 Objective NA
Year 2010 Objective NA

- Coccidioides immitis* is a fungus present in the soil in semiarid areas, and endemic to the south western United States, parts of Mexico and South America.

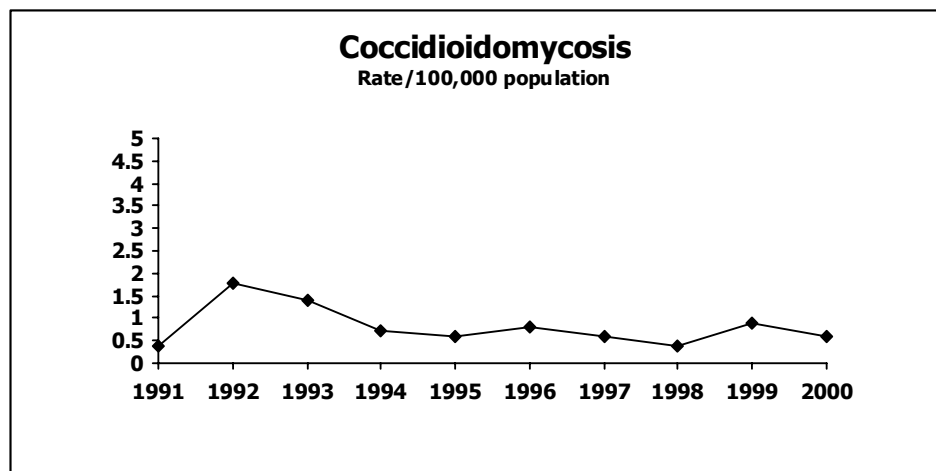
- Primary infection with *C. immitis* may be asymptomatic or resemble an acute influenza-like illness (40% of cases).

- African-Americans and Asians, pregnant women, and immunocompromised persons are at greater risk of disseminated disease.

- Of the 26 cases reported in 1999, 20 (77%) had pulmonary involvement, and 6 (23%) had disseminated disease.

- Of the 16 cases reported in 2000, 12 (75%) had pulmonary involvement and 4 (25%) had disseminated disease.

Orange County	1996	1997	1998	1999	2000
Total Cases	20	15	11	26	16
Gender					
Male	14	6	8	19	11
Female	6	9	3	7	5
Unknown	0	0	0	0	0
Ethnicity					
White	6	5	3	8	9
Black	0	1	0	0	1
Hispanic	8	2	1	4	2
Southeast Asian	0	0	0	0	1
Other Asian	1	1	2	2	0
Other/Unknown	5	6	5	12	3
Age					
Under 1 year	0	0	0	0	0
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	1	1	0	0	1
15-19	1	1	0	1	0
20-24	0	0	0	2	0
25-34	7	1	1	5	2
35-44	4	7	3	6	1
45-54	2	3	4	4	4
55-64	1	2	1	7	5
65 & over	4	0	2	1	3
Unknown	0	0	0	0	0



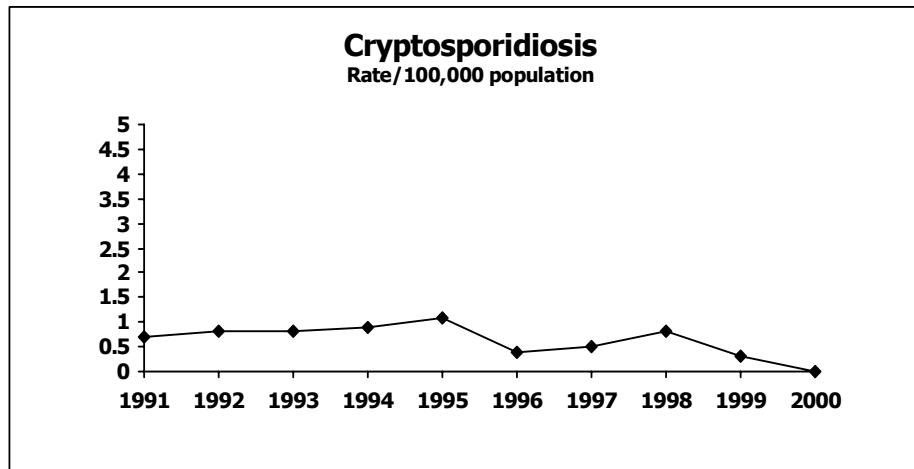
Cryptosporidiosis

Rate per 100,000 population:	1996	1997	1998	1999	2000
Orange County	0.4	0.5	0.8	0.3	<0.1
California	1.5	1.0	1.1	0.8	0.7
United States	NA	1.1	1.6	0.9	1.2

Year 2000 Objective NA
Year 2010 Objective NA

- Since cryptosporidiosis became reportable in California in 1989, the annual number of reported cases in Orange County has fluctuated between 1 and 28 cases (rate of <0.1 to 1.1 per 100,000).
- Transmission is by the fecal oral route and can be person-to-person, animal-to-person, waterborne or foodborne. Both foodborne and waterborne (including potable and recreational water) outbreaks have been reported in the United States.
- Persons at increased risk for cryptosporidiosis include child care workers, diaper-aged children who attend child care centers, persons exposed to human feces by sexual contact, and caregivers of infected persons.
- People who are immunocompromised, particularly when due to HIV infection, are at risk for severe, prolonged disease.

Orange County	1996	1997	1998	1999	2000
Total Cases	11	13	21	8	1
Gender					
Male	7	8	15	6	0
Female	4	5	6	2	1
Unknown	0	0	0	0	0
Ethnicity					
White	4	4	5	0	0
Black	0	0	0	0	0
Hispanic	2	0	2	0	0
Southeast Asian	0	0	0	0	0
Other Asian	0	0	0	0	0
Other/Unknown	5	9	14	8	1
Age					
Under 1 year	0	0	0	0	0
1-4	0	1	5	1	0
5-9	0	1	3	0	0
10-14	0	0	2	0	1
15-19	0	0	1	0	0
20-24	0	0	0	1	0
25-34	3	3	5	1	0
35-44	6	4	2	4	0
45-54	1	3	2	1	0
55-64	1	0	0	0	0
65 & over	0	1	1	0	0
Unknown	0	0	0	0	0

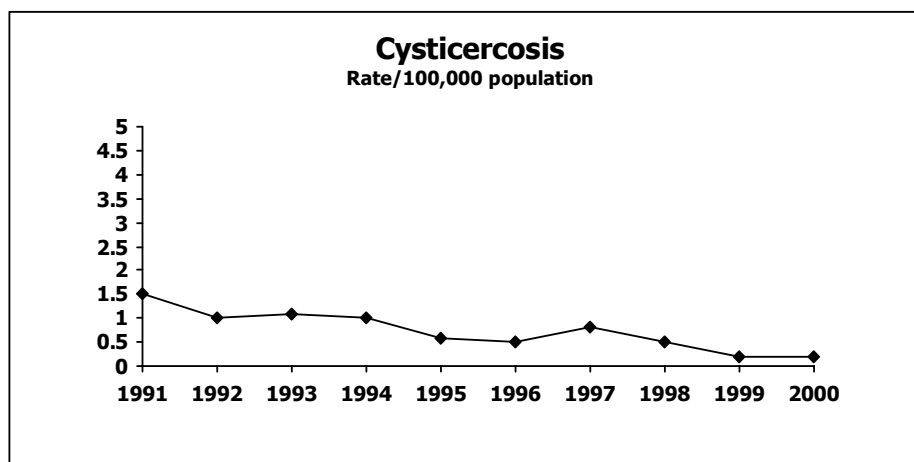


Cysticercosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.5	0.8	0.5	0.2	0.2
California	0.3	0.4	0.3	0.2	0.2
United States	NA	NA	NA	NA	NA
Year 2000 Objective	NA				
Year 2010 Objective	NA				

- Cysticercosis is endemic in rural areas of Latin America, Asia, and Africa and is most often recognized as neurocysticercosis, infection of the central nervous system with the larval stage of the pork tapeworm, *Taenia solium*.
- All 6 Orange County cases reported in 2000 were foreign-born from areas where the pork tapeworm is endemic.
- Household contact with a person infected by the pork tapeworm can result in ingestion of the tapeworm eggs and, ultimately, in cysticercosis.

Orange County	1996	1997	1998	1999	2000
Total Cases	14	21	15	5	6
Gender					
Male	9	10	12	3	4
Female	5	11	3	2	2
Unknown	0	0	0	0	0
Ethnicity					
White	0	0	1	0	0
Black	0	0	0	0	0
Hispanic	12	21	14	5	6
Southeast Asian	0	0	0	0	0
Other Asian	0	0	0	0	0
Other/Unknown	2	0	0	0	0
Age					
Under 1 year	0	0	0	0	0
1-4	3	0	1	1	0
5-9	0	0	1	0	0
10-14	0	1	2	1	0
15-19	2	2	1	0	0
20-24	0	5	3	0	2
25-34	5	6	6	1	3
35-44	1	4	1	2	0
45-54	1	2	0	0	0
55-64	1	0	0	0	1
65 & over	1	1	0	0	0
Unknown	0	0	0	0	0



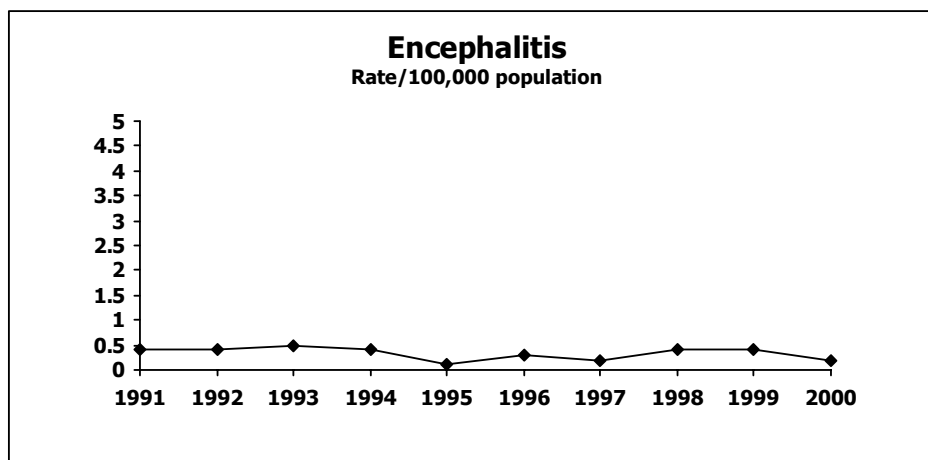
Encephalitis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.3	0.2	0.4	0.4	0.2
California	0.3	0.3	0.4	0.5	0.6
United States	NA	NA	NA	NA	NA

Year 2000 Objective NA
Year 2010 Objective NA

- This category includes viral and post-infectious encephalitis, as well as encephalitis of unknown etiology. All 6 Orange County cases reported in 2000 were of unknown etiology.
- Saint Louis Encephalitis (SLE) and Western Equine Encephalitis (WEE) are endemic to California and are transmitted by mosquitoes. These are seasonal diseases, occurring in the summer and early fall. Annual surveillance for these viruses through testing of mosquitoes, sentinel chicken flocks and small birds takes place each year from May through October.
- Public Health can facilitate diagnosis of SLE and WEE by forwarding blood specimens to the State for IgM antibody testing.
- The last known case of SLE in Orange County was reported in 1993.
- In 1984 the first urban outbreak of SLE occurred, with 26 cases in Southern California; 5 of these were Orange County residents.

Orange County	1996	1997	1998	1999	2000
Total Cases	7	6	10	12	6
Gender					
Male	3	3	9	4	4
Female	4	3	1	8	2
Unknown	0	0	0	0	0
Ethnicity					
White	5	3	5	6	3
Black	0	0	0	0	0
Hispanic	0	1	3	3	0
Southeast Asian	1	1	0	0	0
Other Asian	0	0	2	1	0
Other/Unknown	1	1	0	2	3
Age					
Under 1 year	2	1	0	1	0
1-4	1	0	1	0	0
5-9	0	0	2	2	0
10-14	0	0	0	0	0
15-19	0	0	0	1	1
20-24	1	0	0	0	0
25-34	1	1	2	1	1
35-44	0	1	1	2	2
45-54	1	3	2	2	0
55-64	0	0	1	2	1
65 & over	1	0	1	1	1
Unknown	0	0	0	0	0



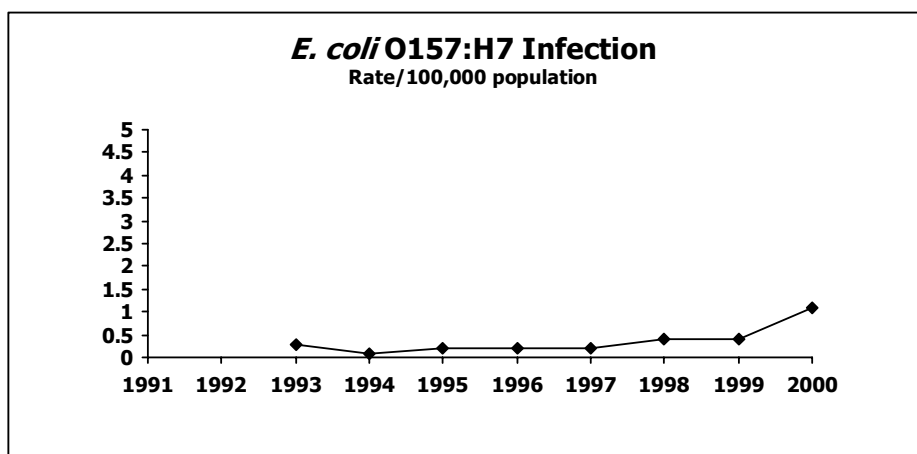
***E. coli* O157:H7 Infection**

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.2	0.2	0.4	0.4	1.1
California	0.6	0.6	0.8	0.6	0.9
United States	1.2	1.0	1.3	1.8	1.7

Year 2000 Objective	4.0/100,000
Year 2010 Objective	1.0/100,000

- Escherichia coli* O157:H7 infection became reportable in California in 1993.
- Of the 30 cases reported in 2000, 26 (87%) cases had onset of symptoms from May through September, with a peak of 10 cases in June, 2000. Two of the cases developed hemolytic uremic syndrome (HUS); none died. The reason for the increase in cases remains unknown.
- Outbreaks have been most commonly associated with ground beef; however, many other vehicles have been identified in recent years, including lettuce, alfalfa sprouts, unpasteurized apple juice, and recreational water. One 2000 case was part of a suspected multi-state outbreak. The same strain of *E. coli* O157:H7 was isolated from an open package of ground beef from this case's home.
- Misdiagnosis of *E. coli* O157:H7 is common because there is usually no fever, and the stool is either not bloody, or so bloody that non-infectious causes are suspected. The diagnosis will be missed if only standard culture media are used.

Orange County	1996	1997	1998	1999	2000
Total Cases	6	6	11	11	30
Gender					
Male	1	4	6	4	13
Female	5	2	5	7	17
Unknown	0	0	0	0	0
Ethnicity					
White	5	4	9	6	24
Black	0	0	0	0	0
Hispanic	0	2	1	4	4
Southeast Asian	0	0	0	0	0
Other Asian	0	0	0	0	1
Other/Unknown	1	0	1	1	1
Age					
Under 1 year	0	0	0	0	0
1-4	2	2	3	5	6
5-9	2	2	2	1	6
10-14	0	0	2	1	10
15-19	0	0	1	0	1
20-24	0	0	2	0	2
25-34	1	1	0	0	0
35-44	0	0	0	1	0
45-54	1	1	0	1	2
55-64	0	0	0	0	1
65 & over	0	0	1	2	2
Unknown	0	0	0	0	0



Foodborne Disease Outbreaks

Foodborne Outbreaks	1996	1997	1998	1999	2000
Orange County					
Outbreaks	11	12	11	23	15
Number of Reported Ill	137	319	187	496	230
California					
Outbreaks	58	71	88	122	132
Number Reported Ill	2019	1951	3968	3563	2978

- "Foodborne disease outbreak" is defined in California Code of Regulations, Title 17, Section 2500, as "an incident in which two or more persons experience a similar illness after ingestion of a common food, and epidemiologic analysis implicates the food as the source of the illness". Exceptions are single cases of botulism or chemical poisoning with laboratory confirmation of the causative agent in food.
- Foodborne outbreaks are not likely to be representative of all foodborne disease occurring in the County because foodborne outbreaks associated with meal events (banquets, receptions, pot lucks, etc.), where a group of people are assembled for one meal, are more likely to be recognized than other situations.
- Nationwide data indicate that improper holding temperature and poor personal hygiene of food handlers were, respectively, the first and second most commonly reported practices contributing to reported outbreaks.

Orange County Foodborne Disease Outbreaks Reported to the State in 2000						
Onset	# Ill	Agent	Status	Vehicle	Prepared	Eaten
01/01/2000	5	Norwalk virus	suspect	unk	restaurant	restaurant
03/19/2000	5	Bacterial toxin	suspect	unk	restaurant	restaurant
04/10/2000	4	Bacterial toxin	suspect	unk	restaurant	restaurant
04/15/2000	13	Norwalk virus	suspect	unk	restaurant	office
04/04/2000	6	<i>Salmonella</i> Thompson	known	unk	private residence	private residence
05/21/2000	30	Bacterial toxin	suspect	unk	private residence	private residence
05/14/2000	100	Norwalk virus	suspect	unk	restaurant	hotel ballroom
06/11/2000	11	Bacterial toxin	suspect	unk	restaurant	clubhouse
07/01/2000	16	Bacterial agent	suspect	unk	restaurant	restaurant
08/14/2000	2	Scrombroid	known	fish	restaurant	restaurant
07/16/2000	38	Norwalk virus	suspect	unk	restaurant	school grounds

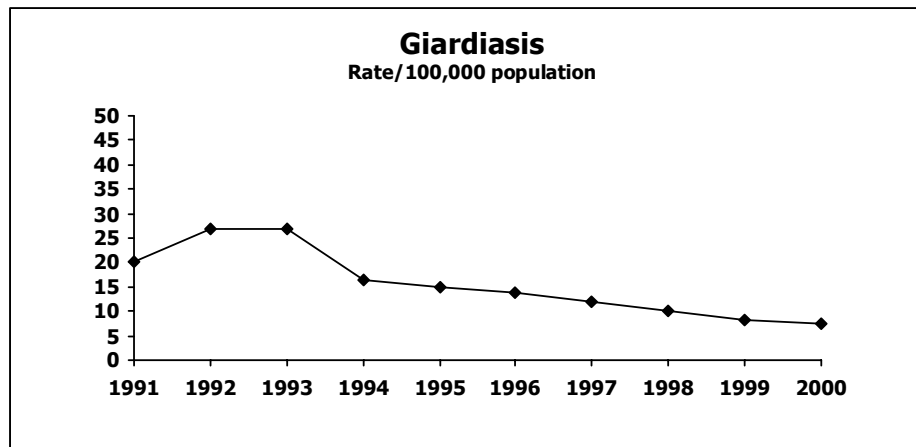
Giardiasis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	13.8	11.9	9.9	8.2	7.6
California	16.4	14.5	12.8	11.4	10.3
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- Giardia intestinalis* (also known as *G. lamblia* or *G. duodenalis*) has a very low infective dose. It is transmitted by the fecal-oral route. Animals, including dogs and cats, can also be infected.
- Significant declines in the rate of giardiasis in Orange County have occurred since a peak of 684 cases in 1993. Reported cases have declined 68% from 1993 to 2000. Individual cases of giardiasis are not investigated by Orange County Public Health.
- Although giardiasis reporting is required in California, it is not a nationally notifiable disease.

Orange County	1996	1997	1998	1999	2000
Total Cases	365	321	272	231	216
Gender					
Male	193	156	141	130	112
Female	171	165	131	101	104
Unknown	1	0	0	0	0
Ethnicity					
White	98	79	53	41	41
Black	0	0	3	1	1
Hispanic	59	35	28	22	14
Southeast Asian	56	27	25	34	16
Other Asian	3	2	3	2	4
Other/Unknown	149	178	160	131	140
Age					
Under 1 year	2	1	2	1	0
1-4	80	71	70	43	37
5-9	52	36	29	37	23
10-14	34	20	14	22	14
15-19	21	12	5	9	14
20-24	16	13	11	9	12
25-34	52	54	54	34	43
35-44	46	54	40	43	40
45-54	29	34	21	18	16
55-64	16	10	14	6	11
65 & over	17	16	12	9	6
Unknown	0	0	0	0	0



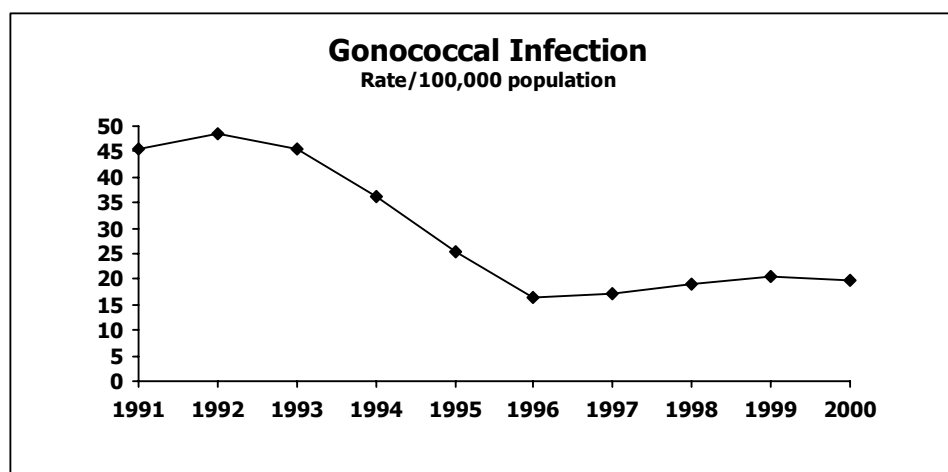
Gonococcal Infection

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	16.4	17.1	19.1	20.4	19.9
California	57.1	54.6	58.6	55.0	62.3
United States	112.8	121.4	132.9	133.2	131.7

Year 2000 Objective	100.0/100,000
Year 2010 Objective	19.0/100,000

- At 20.0 per 100,000 in 2000, the gonococcal (GC) infection rate in Orange County has dropped significantly since the early 1980s when rates were >300/100,000. Nevertheless, GC has increased in Orange County since 1996.
- Cases of GC caused by *N. gonorrhoeae* resistant to fluoroquinolones have been reported sporadically from many parts of the world. Orange County submits a sample of isolates to CDC as part of surveillance for *N. gonorrhoeae* drug resistance. Isolates with decreased susceptibility to ciprofloxacin have been reported since at least 1993. Orange County had 22 such isolates from 1991 to 2000. The six resistant isolates identified in 2000 made necessary the sending of an alert to physicians containing treatment recommendations and a reminder to report any cases of treatment failure to Orange County Public Health.

Orange County	1996	1997	1998	1999	2000
Total Cases	435	461	521	572	568
Gender					
Male	256	258	325	359	367
Female	177	199	194	206	187
Unknown	2	4	2	7	14
Ethnicity					
White	134	72	77	65	96
Black	38	27	25	34	30
Hispanic	191	81	102	238	180
Southeast Asian	4	0	0	0	0
Other Asian	8	5	11	21	15
Other/Unknown	60	276	306	214	247
Age					
Under 1 year	1	1	0	0	0
1-4	1	0	0	0	1
5-9	0	0	1	3	1
10-14	5	8	2	6	2
15-19	87	82	96	83	81
20-24	109	112	128	141	133
25-34	155	153	190	183	181
35-44	56	62	69	105	116
45-54	11	21	13	17	28
55-64	2	5	5	6	4
65 & over	2	5	3	2	1
Unknown	6	12	14	26	20



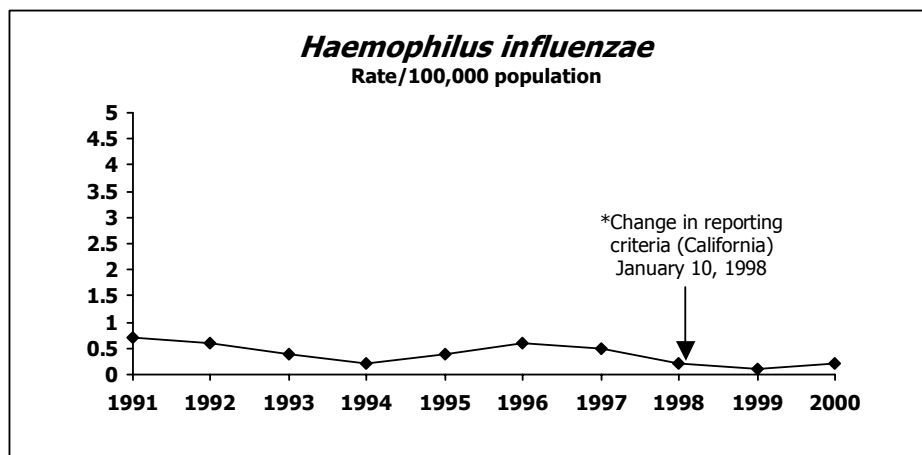
Haemophilus influenzae

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.6	0.5	0.2	0.1	0.2
California	0.6	0.6	0.2	0.2	0.1
United States	0.5	0.4	0.4	0.5	0.5

Year 2000 Objective NA
Year 2010 Objective 0.0 cases/100,000

- Beginning in early 1998, only invasive cases less than 30 years of age were reportable in California. In prior years, 30-40% of Orange County cases were 30 years of age or older, although 1994 was an exception due to no cases being reported in young children that year.
- Prior to introduction of effective vaccines, *Haemophilus influenzae* type b (Hib) was the leading cause of bacterial meningitis in children. In October of 1990, a Hib vaccine that was effective in infants was licensed.
- Before introduction of the first Hib vaccine, licensed in April of 1985 for use in children 24 months of age and older, only Hib meningitis was reportable (beginning in 1983). The rate of Hib meningitis was 3.1 and 3.4/100,000 in Orange County in 1983 and 1984, respectively.
- Hib vaccine is effective only against invasive disease caused by Type B. Other types of *H. influenzae* commonly cause childhood ear infections.

Orange County	1996	1997	1998	1999	2000
Total Cases	15	13	6	4	5
Gender					
Male	6	5	3	3	4
Female	9	8	3	1	1
Unknown	0	0	0	0	0
Ethnicity					
White	6	4	1	2	1
Black	0	0	0	0	0
Hispanic	8	6	4	1	3
Southeast Asian	0	0	0	0	1
Other Asian	0	0	0	1	0
Other/Unknown	1	3	1	0	0
Age					
Under 1 year	2	5	2	0	2
1-4	2	1	2	1	3
5-9	2	2	0	1	0
10-14	0	0	1	0	0
15-19	2	0	1	0	0
20-24	0	1	0	0	0
25-34	1	0	0	1	0
35-44	1	0	0	0	0
45-54	1	0	0	0	0
55-64	2	0	0	0	0
65 & over	2	4	0	0	0
Unknown	0	0	0	0	0



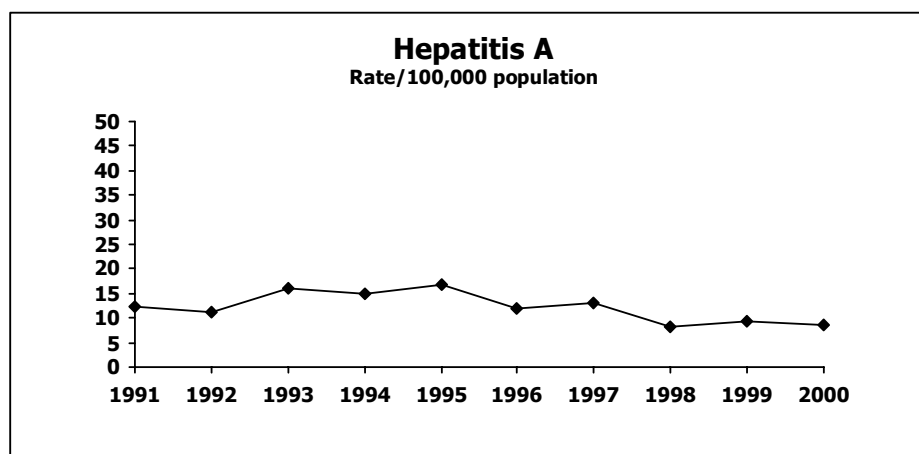
Hepatitis A

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	12.1	12.9	8.3	9.5	8.6
California	20.5	19.5	12.5	10.1	8.8
United States	11.7	11.2	8.6	6.3	4.9

Year 2000 Objective	16.0/100,000
Year 2010 Objective	4.5/100,000

- The rate of hepatitis A in Orange County has steadily decreased from its peak in 1977 at 35.7 cases per 100,000 population to less than 10 per 100,000 since 1998.
- In California, the hepatitis A vaccine is recommended for all children 2 years to 18 years of age.
- E&A investigates all reported acute hepatitis A cases, and recommends and/or provides prophylaxis to family members and other close contacts.
- Of the 222 cases in 2000 available for interview, the most common Hepatitis A risk factors cited were the following:
 - 48% reported out-of-country travel (70% to Mexico)
 - 29% reported contact to a hepatitis A case
 - 13% reported having eaten undercooked or raw seafood
 - 9% had direct or indirect contact with a preschool child care setting

Orange County	1996	1997	1998	1999	2000
Total Cases	319	348	228	267	245
Gender					
Male	177	194	140	159	128
Female	142	154	88	108	117
Unknown	0	0	0	0	0
Ethnicity					
White	140	155	75	92	97
Black	2	1	1	0	2
Hispanic	134	144	125	150	120
Southeast Asian	1	0	3	0	3
Other Asian	9	10	8	10	9
Other/Unknown	33	38	16	15	14
Age					
Under 1 year	0	0	0	0	0
1-4	42	34	19	24	22
5-9	49	62	59	72	70
10-14	38	30	34	34	34
15-19	22	29	7	20	15
20-24	20	18	15	20	14
25-34	51	63	29	35	33
35-44	40	58	31	30	21
45-54	29	31	7	11	13
55-64	12	13	15	8	14
65 & over	16	10	12	13	9
Unknown	0	0	0	0	0



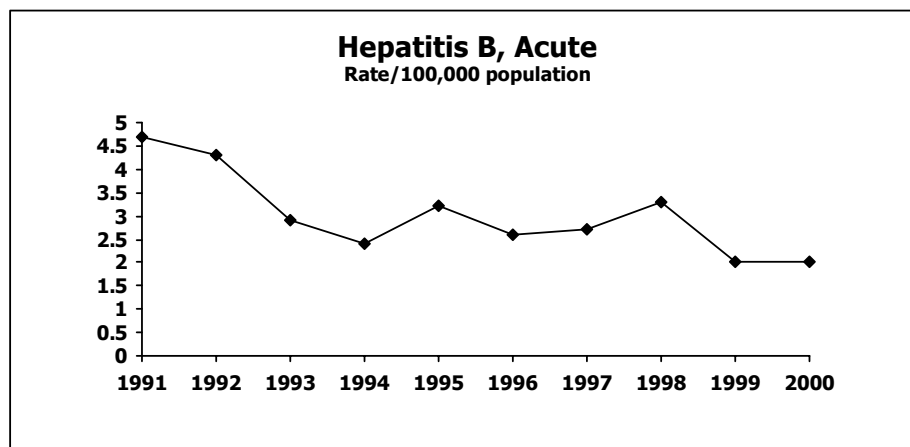
Hepatitis B, Acute

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	2.6	2.7	3.3	2.0	2.0
California	5.3	5.0	4.3	3.6	3.2
United States	4.0	3.9	3.8	2.8	3.0

Year 2000 Objective NA
Year 2010 Objective NA

- The rate of reported acute hepatitis B virus (HBV) infection in Orange County had its most recent peak in 1985 at 26.1 cases per 100,000 population. Since 1985, the rate decreased 92%, to 2/100,000 in 2000.
- Many factors contributed to the long-term decline in the rate of acute HBV infection, including the following:
 - In 1/91, a legal mandate to test all pregnant women for HBV infection took effect, enabling more children to be protected from HBV infection at birth.
 - In 11/91, universal infant vaccination against HBV was recommended. This recommendation has been expanded to include all children through 18 years.
 - In 3/92, the OSHA Bloodborne Pathogen Standard was promulgated, resulting in the vaccination of many health care workers.
 - Since 8/97, California has required HBV vaccine for kindergarten entry; in 7/99, the vaccine became mandatory for 7th grade entry.

Orange County	1996	1997	1998	1999	2000
Total Cases	69	73	90	55	58
Gender					
Male	57	48	70	39	35
Female	12	25	20	16	23
Unknown	0	0	0	0	0
Ethnicity					
White	28	33	45	27	27
Black	3	1	3	3	2
Hispanic	19	14	11	11	14
Southeast Asian	5	6	11	7	4
Other Asian	4	10	14	3	4
Other/Unknown	10	9	6	4	7
Age					
Under 1 year	0	0	0	0	0
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	1	0	0	1	0
15-19	4	3	4	5	3
20-24	9	9	5	3	7
25-34	25	24	26	19	14
35-44	16	15	23	14	21
45-54	9	14	18	5	6
55-64	4	5	7	1	5
65 & over	1	3	7	7	2
Unknown	0	0	0	0	0



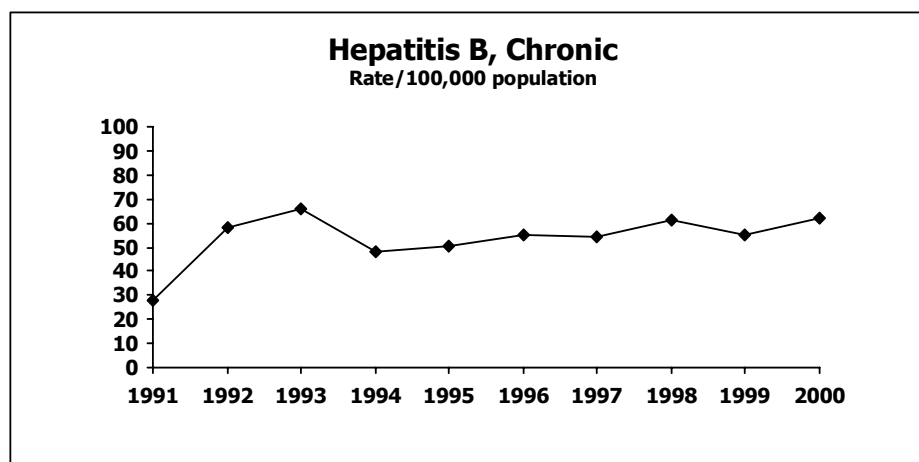
Hepatitis B, Chronic

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	55.1	54.6	61.5	55.1	62.3
California	29.6	35.7	35.3	53.3	54.9
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- In 1/91, a legal mandate to test all pregnant women for hepatitis B surface antigen went into effect. Once fully implemented, this law contributed significantly to a more than two-fold increase in reported chronically infected HBV cases.
- Other factors may have contributed to the maintenance of this dramatic increase, including:
 - a greater awareness of the disease due to the implementation of universal childhood vaccination against hepatitis B
 - requests by the California Department of Health Services for voluntary laboratory reporting followed in 2/96 by a requirement for laboratory reporting of all HBsAg and Anti-HBcIgM positive results
 - State funding of the perinatal hepatitis B program for screening of family contacts
 - other screening programs in the community

Orange County	1996	1997	1998	1999	2000
Total Cases	1459	1474	1692	1545	1780
Gender					
Male	684	770	934	847	1021
Female	770	700	758	698	759
Unknown	5	4	0	0	0
Ethnicity					
White	84	68	93	73	72
Black	8	6	12	12	6
Hispanic	52	42	46	48	54
Southeast Asian	571	532	647	627	807
Other Asian	376	346	397	363	329
Other/Unknown	368	480	497	422	512
Age					
Under 1 year	0	1	1	0	2
1-4	2	3	6	10	5
5-9	17	13	15	4	5
10-14	49	33	31	20	29
15-19	99	95	105	88	90
20-24	168	136	130	124	104
25-34	413	401	492	422	451
35-44	310	372	401	372	433
45-54	218	243	295	276	331
55-64	104	99	149	123	176
65 & over	70	74	67	106	154
Unknown	9	4	0	0	0



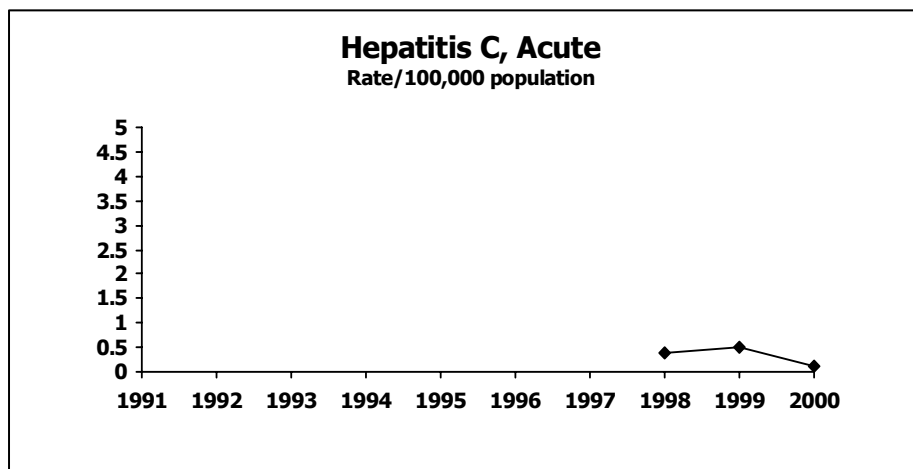
Hepatitis C, Acute

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	NA	NA	0.4	0.5	0.1
California	0.2	0.5	0.5	0.5	0.3
United States	1.4	1.4	1.3	1.1	1.2

Year 2000 Objective	NA
Year 2010 Objective	1.0/100,000

- Hepatitis C was made reportable in California in 2/96. Prior to that, it was reported as non-A, non-B hepatitis.
- Until 1998, acute and chronic hepatitis C infections were combined into a single reporting category in California.
- Acute hepatitis C accounts for 15%-16% of acute viral hepatitis in the United States.
- The overwhelming majority of hepatitis C virus infections reported in Orange County are reported as or assumed to be chronic infections.
- In 2000, all 4 reported cases of acute hepatitis C in Orange County were male.
- The surveillance definition of a case of acute hepatitis C: a patient with a test positive for hepatitis C antibody or hepatitis C viral RNA, a discrete onset of symptoms consistent with hepatitis, and elevated aminotransferase levels greater than 2.5 times the upper limit of normal.
- Initial infection with HCV is usually asymptomatic (60%-70%); Only 20%-30% develop jaundice.

Orange County	1996	1997	1998	1999	2000
Total Cases	NA	NA	10	13	4
Gender					
Male	NA	NA	5	9	4
Female	NA	NA	5	4	0
Unknown	NA	NA	0	0	0
Ethnicity					
White	NA	NA	6	8	3
Black	NA	NA	0	0	0
Hispanic	NA	NA	3	5	1
Southeast Asian	NA	NA	0	0	0
Other Asian	NA	NA	0	0	0
Other/Unknown	NA	NA	1	0	0
Age					
Under 1 year	NA	NA	0	0	0
1-4	NA	NA	1	0	0
5-9	NA	NA	0	0	0
10-14	NA	NA	0	0	0
15-19	NA	NA	1	1	1
20-24	NA	NA	0	1	0
25-34	NA	NA	4	6	1
35-44	NA	NA	4	3	1
45-54	NA	NA	0	1	0
55-64	NA	NA	0	0	0
65 & over	NA	NA	0	1	1
Unknown	NA	NA	0	0	0



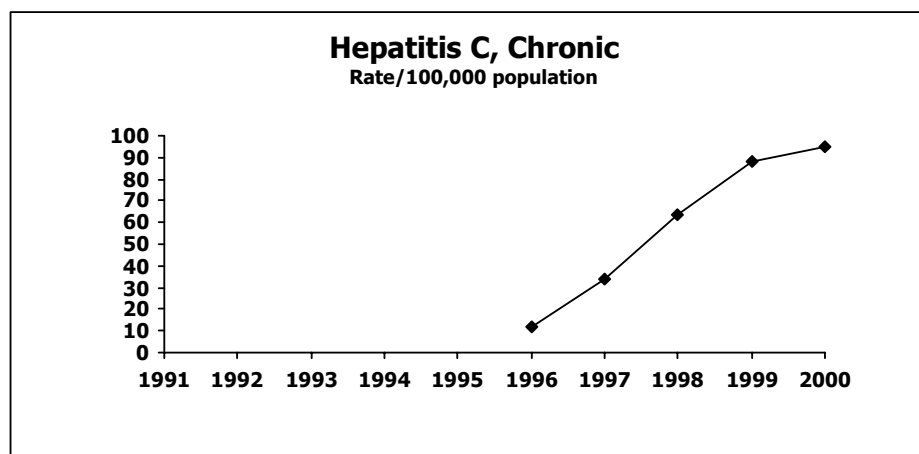
Hepatitis C, Chronic

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	12.0	34.1	63.7	88.4	95.0
California	16.6	33.7	54.1	101.3	115.8
United States	NA	NA	NA	NA	NA

Year 2000 Objective NA
Year 2010 Objective NA

- Hepatitis C virus (HCV) infection was made reportable in California in 2/96. Prior to that, it was reported as non-A, non-B hepatitis.
- The overwhelming majority of HCV infections reported in Orange County are reported as or assumed to be chronic infections.
- The first test for HCV antibody was licensed in 5/90. Newer antibody tests have improved specificity.
- No protective antibody has been identified in HCV infected individuals. There remains no way to culture the virus.
- According to the CDC, between 75% and 85% of persons infected with HCV develop chronic infection.

Orange County	1996	1997	1998	1999	2000
Total Cases	317	921	1751	2477	2715
Gender					
Male	187	578	1160	1619	1722
Female	130	343	591	858	993
Unknown	0	0	0	0	0
Ethnicity					
White	55	286	618	847	806
Black	4	14	22	53	60
Hispanic	51	109	236	357	335
Southeast Asian	22	71	181	241	365
Other Asian	13	28	46	59	53
Other/Unknown	172	413	648	920	1096
Age					
Under 1 year	0	0	0	0	0
1-4	0	3	3	1	2
5-9	0	0	2	3	2
10-14	1	0	5	2	3
15-19	3	12	15	22	25
20-24	7	12	39	49	56
25-34	51	148	255	359	317
35-44	110	341	628	875	931
45-54	67	239	453	685	801
55-64	41	79	194	242	292
65 & over	37	87	156	239	286
Unknown	0	0	1	0	0



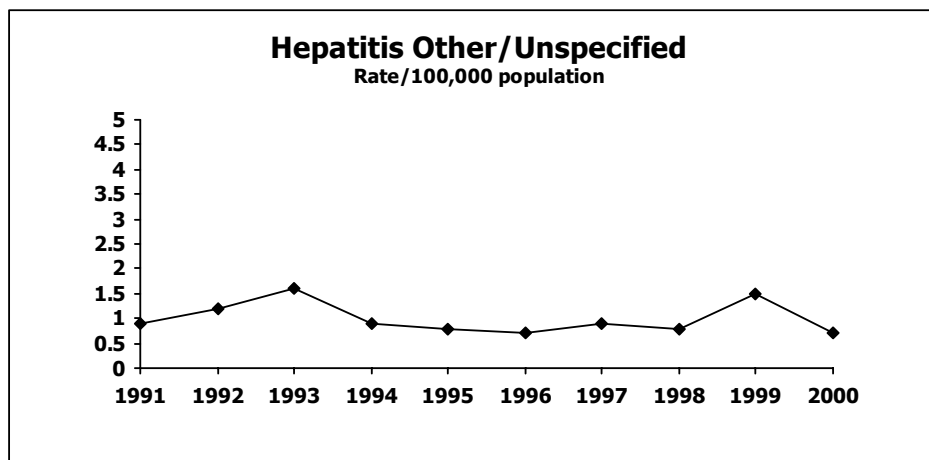
Hepatitis Other/Unspecified

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.7	0.9	0.8	1.5	0.7
California	0.4	0.3	0.4	0.3	0.3
United States	NA	NA	NA	NA	NA

Year 2000 Objective NA
Year 2010 Objective NA

- This category includes cases of hepatitis with incomplete serological testing and cases in whom serological testing was completed but none of the tests was positive.
- Only one case of hepatitis E virus infection has been reported in an Orange County resident. That case, reported in 1993, had traveled to a country where hepatitis E is endemic.
- In 2000, 13 cases of "other" and 6 cases of "unspecified" hepatitis were reported.

Orange County	1996	1997	1998	1999	2000
Total Cases	18	23	21	41	19
Gender					
Male	9	13	9	27	9
Female	9	10	12	14	10
Unknown	0	0	0	0	0
Ethnicity					
White	7	11	7	16	6
Black	1	0	0	0	1
Hispanic	6	8	8	15	6
Southeast Asian	1	1	2	4	0
Other Asian	1	0	0	2	2
Other/Unknown	2	3	4	4	4
Age					
Under 1 year	0	0	0	2	1
1-4	0	1	1	1	1
5-9	3	2	1	3	1
10-14	0	0	3	0	1
15-19	0	1	2	5	4
20-24	2	1	0	3	1
25-34	6	5	8	11	3
35-44	2	7	3	8	2
45-54	2	1	1	4	0
55-64	1	0	0	0	1
65 & over	2	5	2	4	4
Unknown	0	0	0	0	0



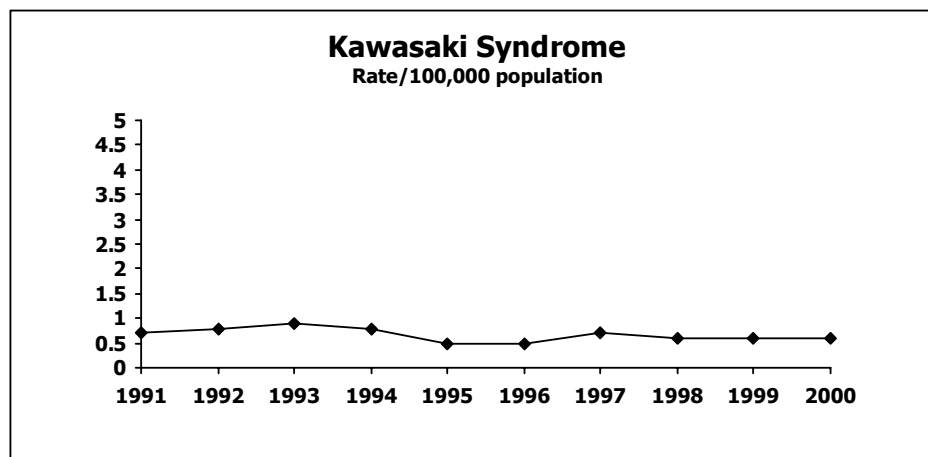
Kawasaki Syndrome

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.5	0.7	0.6	0.6	0.6
California	0.3	0.3	0.4	0.6	0.5
United States	NA	NA	NA	NA	NA

Year 2000 Objective **NA**
Year 2010 Objective **NA**

- Kawasaki Syndrome is thought to be due to an as yet undetermined infectious agent or its toxin.
- Orange County cases are typical of those reported in the literature: peak age 1-2 years, males more often affected than females.
- 15-25% of patients may develop coronary artery aneurysms or coronary arteritis; this proportion is reduced to 8% by treatment within 10 days of illness onset. Treatment involves use of intravenous immune globulin (IVIG) and aspirin.
- In 1999, 1 case was noted to have coronary artery dilation, and 2 cases had probable coronary artery aneurysm.
- In 2000, no unusual aspects were noted among cases.

Orange County	1996	1997	1998	1999	2000
Total Cases	14	19	16	18	17
Gender					
Male	10	8	12	11	8
Female	4	11	4	7	9
Unknown	0	0	0	0	0
Ethnicity					
White	6	6	6	4	6
Black	0	0	0	0	0
Hispanic	6	7	4	2	6
Southeast Asian	0	0	1	1	1
Other Asian	2	6	2	6	3
Other/Unknown	0	0	3	1	1
Age					
Under 1 year	3	1	6	3	3
1-4	10	13	9	13	12
5-9	1	3	1	2	2
10-14	0	1	0	0	0
15-19	0	1	0	0	0
20-24	0	0	0	0	0
25-34	0	0	0	0	0
35-44	0	0	0	0	0
45-54	0	0	0	0	0
55-64	0	0	0	0	0
65 & over	0	0	0	0	0
Unknown	0	0	0	0	0



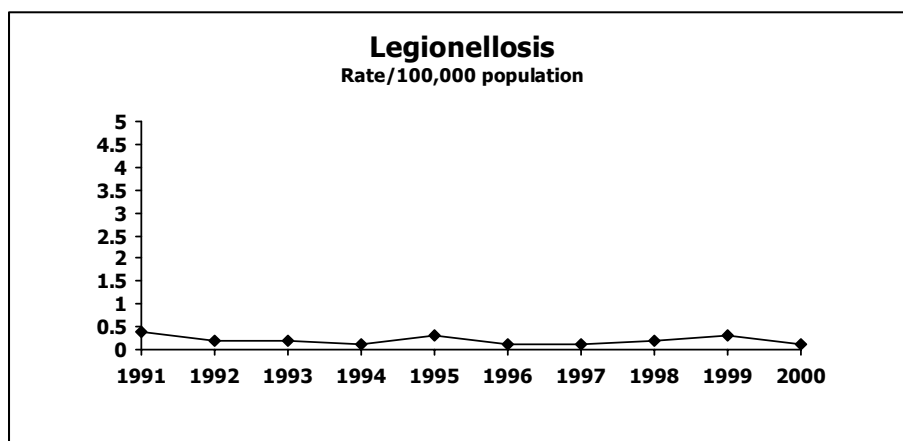
Legionellosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.1	0.1	0.2	0.3	0.1
California	0.1	0.2	0.2	0.2	0.2
United States	0.5	0.4	0.5	0.4	0.4

Year 2000 Objective	NA
Year 2010 Objective	NA

- Legionellosis comprises two clinical syndromes caused by *Legionella* bacteria: Pontiac fever, a mild febrile illness, and Legionnaires' disease (LD), characterized by pneumonia. One case of Pontiac fever was reported in Orange County in 1999.
- A chart review of all 20 cases reported from 1997 to 2000 was performed. The following reflects case characteristics during this time frame:
 - Risk factors identified for 90% of cases included immunosuppression (resulting from disease or therapy), history of transplantation, and ever being a smoker.
 - Diagnosis was confirmed by a greater than 4-fold rise in titer in 1 (5%) case, urine antigen alone in 11 (55%), positive culture alone in 4 (20%), and positive antigen and positive culture in 4 (20%).
 - Among the 8 culture-positive cases: 7 (88%) isolates were *L. pneumophila* (one of which was identified as serogroup 1), and 1 (12%) isolate was *L. bozemanii*.

Orange County	1996	1997	1998	1999	2000
Total Cases	3	3	5	8	4
Gender					
Male	2	2	4	4	2
Female	1	1	1	4	2
Unknown	0	0	0	0	0
Ethnicity					
White	3	2	5	8	4
Black	0	0	0	0	0
Hispanic	0	1	0	0	0
Southeast Asian	0	0	0	0	0
Other Asian	0	0	0	0	0
Other/Unknown	0	0	0	0	0
Age					
Under 1 year	0	0	0	0	0
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	0	0	0	0	0
15-19	0	0	0	0	0
20-24	0	0	0	0	0
25-34	0	1	0	0	0
35-44	1	0	0	2	0
45-54	0	0	1	2	1
55-64	0	1	2	2	2
65 & over	2	1	2	2	1
Unknown	0	0	0	0	0



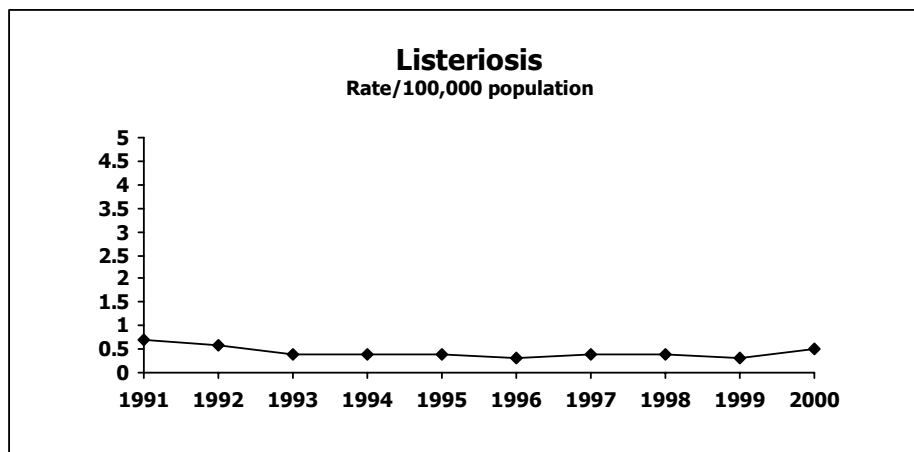
Listeriosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.3	0.4	0.4	0.3	0.5
California	0.3	0.3	0.3	0.3	0.4
United States	NA	NA	NA	NA	0.3

Year 2000 Objective	0.50/100,000
Year 2010 Objective	0.25/100,000

- Listeria monocytogenes* is a bacterium that is commonly present and survives for long periods in the environment. It can grow at refrigeration temperatures and is resistant to high salt and acidity.
- Pregnant women, the elderly, and the immunocompromised are at increased risk of infection. Infection of pregnant women can result in loss of the pregnancy or sepsis or meningitis in the newborn.
- In 1999, risk factors among Orange County cases were as follows: 1 was pregnant, 1 was a newborn, and 7 were immunocompromised. The newborn and 2 adults died. In 2000, risk factors among Orange County cases were as follows: 1 was pregnant, 1 was a newborn, 8 were immunocompromised, and 3 were over age 65. The newborn died; there were no adult deaths.
- In addition to proper food handling, those at high risk should avoid soft cheeses and thoroughly heat or reheat ready to eat foods (e.g., hot dogs, cold cuts).

Orange County	1996	1997	1998	1999	2000
Total Cases	9	12	12	9	13
Gender					
Male	6	6	2	4	6
Female	3	6	10	5	7
Unknown	0	0	0	0	0
Ethnicity					
White	9	2	3	4	7
Black	0	2	0	0	0
Hispanic	0	2	5	3	0
Southeast Asian	0	0	1	1	0
Other Asian	0	0	1	0	1
Other/Unknown	0	6	2	1	5
Age					
Under 1 year	0	2	2	2	1
1-4	0	0	0	0	0
5-9	1	0	0	0	0
10-14	0	0	0	0	0
15-19	0	0	1	0	0
20-24	0	1	0	0	1
25-34	0	1	1	0	0
35-44	0	0	2	0	0
45-54	2	1	1	1	2
55-64	2	3	1	2	2
65 & over	4	4	4	4	7
Unknown	0	0	0	0	0



Malaria

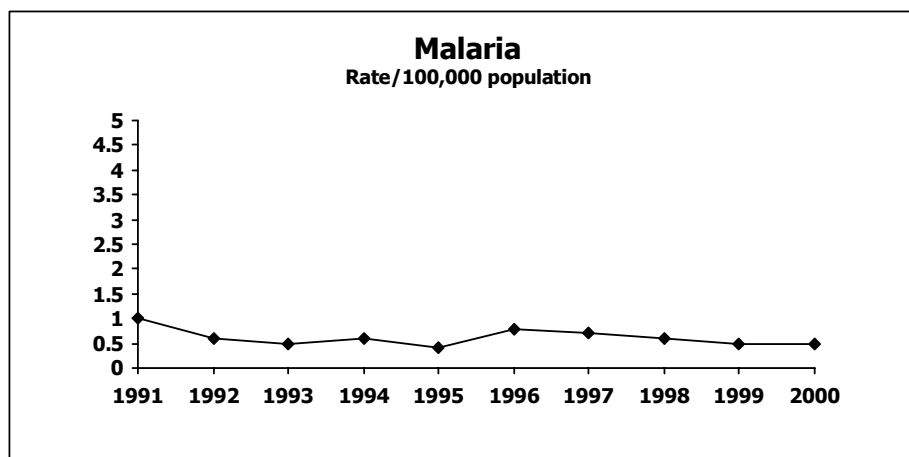
Rate per 100,000 population*:	1996	1997	1998	1999	2000
Orange County	0.8	0.7	0.6	0.5	0.5
California	1.1	1.2	0.7	0.6	0.6
United States	0.7	0.8	0.6	0.6	0.6

* Numerator includes non-resident cases

Year 2000 Objective NA
Year 2010 Objective NA

- Unlike other reportable diseases, malaria reports include non-residents diagnosed in Orange County.
- Data are summarized for 62 cases reported from 1997-2000:
 - Species information†
 - Plasmodium vivax*: 41 (66.1%)
 - P. falciparum*: 18 (29%)
 - P. ovale*: 2 (3.2%)
 - P. malariae*: 2 (3.2%)
 - †1 *P. falciparum*/*P. malariae* co-infection
 - Travel history
 - Asia: 27 (43.5%)
 - Africa: 22 (35.5%)
 - Central America: 10 (16.1%)
 - Unknown: 3 (4.8%)
 - 25 (40.3%) reported some type of prophylaxis
 - 10 (16.1%) had a complication:
 - Anemia: 5
 - Hemolysis: 3
 - Thrombocytopenia: 1
 - Cerebral malaria: 1

Orange County	1996	1997	1998	1999	2000
Total Cases	20	18	16	13	15
Gender					
Male	14	13	7	9	12
Female	6	5	9	4	3
Unknown	0	0	0	0	0
Ethnicity					
White	9	9	7	5	6
Black	1	2	0	1	4
Hispanic	3	0	2	0	2
Southeast Asian	0	0	0	0	0
Other Asian	6	6	5	5	2
Other/Unknown	1	1	2	2	1
Age					
Under 1 year	0	0	0	0	0
1-4	2	0	1	0	1
5-9	0	2	0	0	1
10-14	0	0	1	1	0
15-19	1	2	1	1	0
20-24	2	2	1	1	3
25-34	4	6	6	3	6
35-44	3	1	1	3	3
45-54	4	3	3	1	0
55-64	2	2	2	2	0
65 & over	2	0	0	1	1
Unknown	0	0	0	0	0



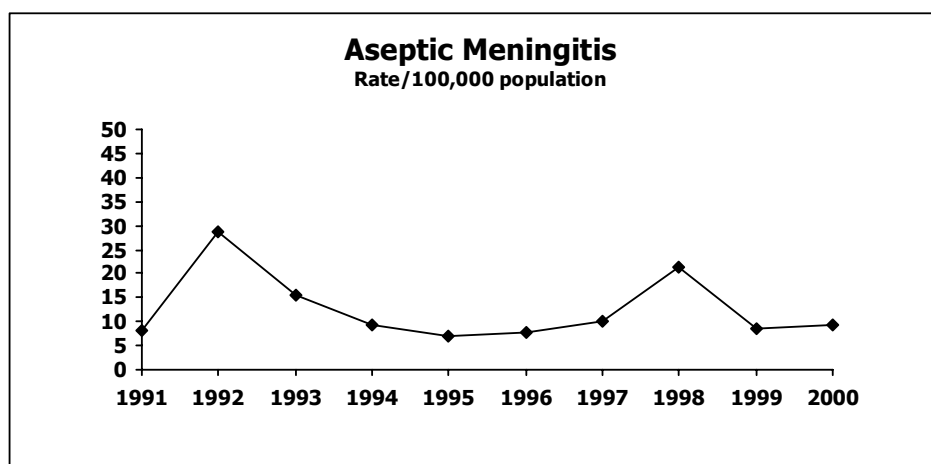
■ Meningitis, Aseptic

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	7.7	10.2	21.3	8.5	9.2
California	3.5	7.0	9.1	4.5	4.9
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- Aseptic meningitis is primarily composed of viral causes of meningitis. In most cases, no viral culture is ordered, and the diagnosis is based on cerebrospinal fluid (CSF) chemistries, and the absence of other pathogens such as bacteria.
- Seasonal increases in late summer and early autumn are due mainly to arboviruses and enteroviruses, such as coxsackievirus and echovirus.
- Since 1976, the County rate of aseptic meningitis has topped 10/100,000 in 6 years: 1983 (11.3/100,000); 1987 (11.9); 1992 (28.1); 1993 (15.1); 1997 (10.0) and 1998 (21.0).
- In 1992 and in 1998, both large epidemic years, the virus Echo 30 appeared to predominate.
- The Public Health Laboratory received a total of three CSF specimens for viral isolation in 2000. No virus was isolated.

Orange County	1996	1997	1998	1999	2000
Total Cases	205	275	586	238	262
Gender					
Male	117	133	320	122	131
Female	87	142	266	116	131
Unknown	1	0	0	0	0
Ethnicity					
White	87	135	273	118	146
Black	3	4	8	2	1
Hispanic	86	100	208	82	65
Southeast Asian	3	0	6	4	1
Other Asian	10	9	16	7	7
Other/Unknown	16	27	75	25	42
Age					
Under 1 year	69	87	88	46	35
1-4	21	28	44	15	20
5-9	17	30	110	35	33
10-14	11	18	77	16	25
15-19	7	9	44	10	16
20-24	8	15	33	10	12
25-34	32	37	102	45	43
35-44	25	28	62	41	51
45-54	12	11	18	11	12
55-64	2	4	4	2	5
65 & over	1	8	4	7	10
Unknown	0	0	0	0	0



■ Meningitis, Bacterial

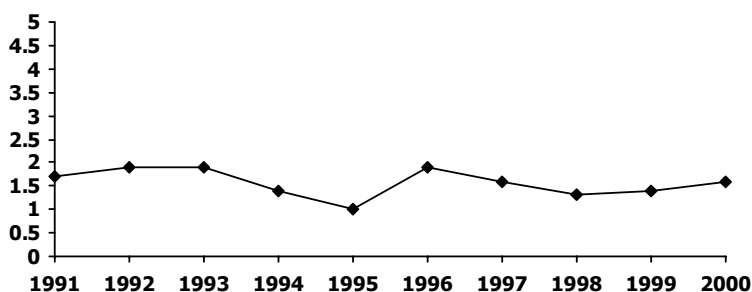
Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.9	1.6	1.3	1.4	1.6
California	0.6	1.1	1.0	1.1	1.1
United States	NA	NA	NA	NA	NA

Year 2000 Objective 4.7/100,000
Year 2010 Objective NA (8.6/100,000 children < 2 years of age)

- This reporting category excludes meningitis due to meningococcal infection.
- 1999 - The etiologic bacterium was determined in 33/38 (87%) cases:
 - Pneumococcus: 15 (45%)
 - *Staphylococcus aureus*: 4 (12%)
 - Group B streptococcus (GBS): 1 (3%)
 - Other: 13 (39%)
- In 1999, 1 death was reported in a 9-month-old with pneumococcal meningitis. The 1 GBS case was in a 4-day-old.
- 2000 - The etiologic bacterium was determined in 40/45 (89%) cases:
 - Pneumococcus: 20 (50%)
 - *Staphylococcus aureus*: 2 (5%)
 - Group B streptococcus (GBS): 2 (5%)
 - Other: 16 (40%)
- 4 bacterial meningitis cases reported in 2000 died: 3 were due to pneumococcal meningitis; 1 was due to *Stenotrophomonas* and enterococci. The 2 GBS cases were aged 27 days and 3 months.

Orange County	1996	1997	1998	1999	2000
Total Cases	51	42	37	38	45
Gender					
Male	24	30	24	23	25
Female	27	12	13	15	20
Unknown	0	0	0	0	0
Ethnicity					
White	29	19	11	21	22
Black	1	0	0	0	2
Hispanic	15	17	18	10	8
Southeast Asian	1	0	1	0	1
Other Asian	3	2	2	1	1
Other/Unknown	2	4	5	6	11
Age					
Under 1 year	14	14	11	7	9
1-4	5	5	5	0	6
5-9	1	1	2	1	0
10-14	1	1	3	3	2
15-19	0	0	0	2	0
20-24	0	0	2	2	2
25-34	3	3	5	5	0
35-44	5	5	1	6	3
45-54	2	2	5	7	7
55-64	4	4	1	1	8
65 & over	7	7	2	4	8
Unknown	0	0	0	0	0

Bacterial Meningitis
Rate/100,000 population



■ Meningitis, Other

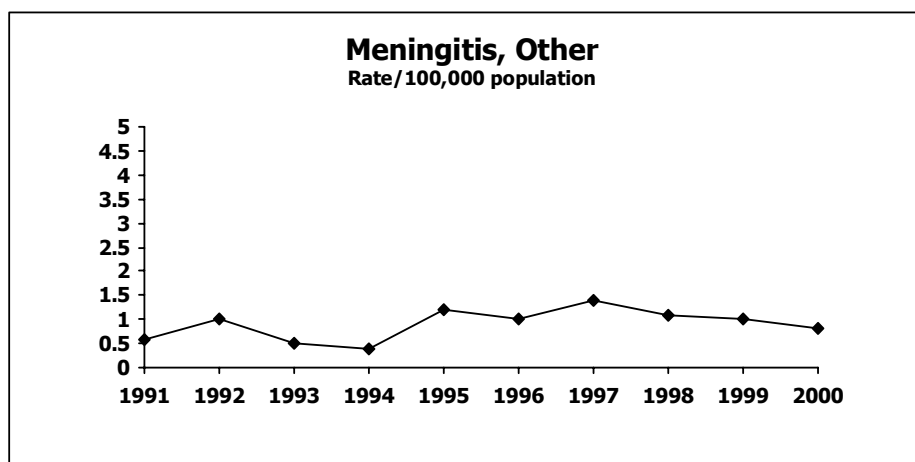
Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.0	1.4	1.1	1.0	0.8
California	0.4	0.8	0.9	0.8	1.0
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- This category includes fungal, parasitic, and unknown causes of meningitis.
- No parasites were reported as causing meningitis in the years 1991-2000.
- In 1999, there were 12 cases of fungal meningitis. All of these cases were due to *Cryptococcus*. Five patients died: 3 were known to have HIV infection, 1 was waiting for a liver transplant, and 1 had lymphoma.
- In 2000, there were 6 cases of fungal meningitis. All of these were due to *Cryptococcus*. Four patients died: 2 were known to have HIV infection, 1 had myeloproliferative disease, and 1 had amyloidosis.
- The number of fungal/unknown cases from 1991 to 2000 is as follows:

1991: 5/9	1996: 6/20
1992: 6/18	1997: 8/31
1993: 10/4	1998: 11/20
1994: 5/5	1999: 12/15
1995: 13/17	2000: 6/18

Orange County	1996	1997	1998	1999	2000
Total Cases	26	39	31	27	24
Gender					
Male	12	25	26	19	15
Female	14	14	5	8	9
Unknown	0	0	0	0	0
Ethnicity					
White	12	15	11	14	6
Black	0	0	0	0	0
Hispanic	12	16	14	5	10
Southeast Asian	0	1	1	0	1
Other Asian	1	2	0	2	2
Other/Unknown	1	5	4	6	5
Age					
Under 1 year	11	17	2	1	7
1-4	0	2	2	1	2
5-9	3	1	6	0	0
10-14	1	1	2	0	1
15-19	0	3	2	0	2
20-24	0	0	2	2	0
25-34	5	6	5	3	2
35-44	1	5	2	6	2
45-54	2	2	4	6	3
55-64	0	0	3	1	0
65 & over	3	2	1	7	5
Unknown	0	0	0	0	0



Meningococcal Disease

Rate per 100,000 population:	1996	1997	1998	1999	2000
Orange County	1.3	0.9	0.8	0.6	0.8
California	1.3	1.2	1.0	0.9	1.0
United States	1.3	1.2	1.0	0.9	0.8

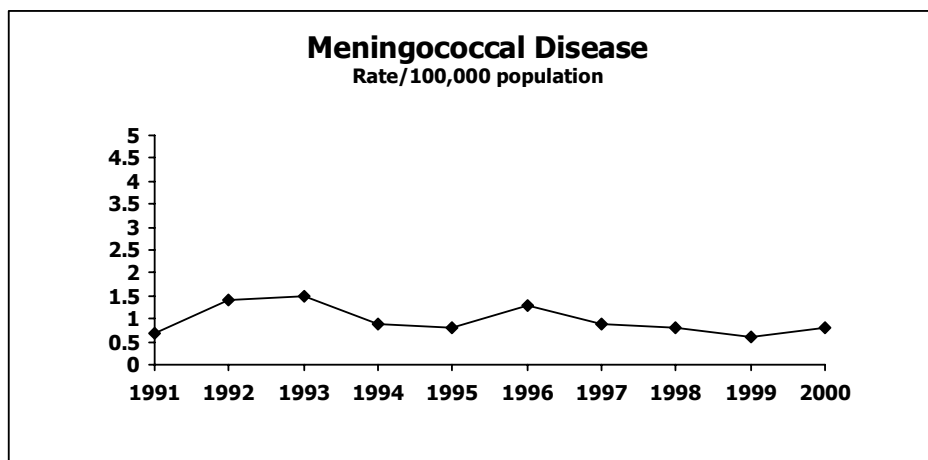
Year 2000 Objective NA
Year 2010 Objective 1.0/100,000

- Meningococcal disease includes meningococcal meningitis, meningococcemia, and other meningococcal infections such as pneumonia or infection of a joint.
- From 1997 to 2000, 87% of cases were culture-confirmed (49% blood only, 25% CSF only, 22% both blood and CSF, 4% other sterile site), 7% demonstrated diplococci on gram stain, 4% were positive on CSF antigen screen only, 1% had a clinical diagnosis (purpura fulminans), and <1% (1 case) was epidemiologically linked.
- From 1997 to 2000, 49% of cases had illness onset during the months of December to March; there were no deaths in 2000, one in 1999, 3 in 1998, and 5 in 1997.
- Orange County Public Health began routine serogrouping of meningococcal isolates in 1996. The distribution of serogroups by report year is as follows:

Year	A	B	C	W135	Y	Z'	Unk
1996	0	6	10	0	11	0	7
1997	0	11	2	0	6	0	4
1998	0	10	1	0	5	1	6
1999	0	7	1	1	5	0	2
2000	0	1	7	1	8	0	5

- From 1996 to 2000, 3 cases occurred among college freshmen attendees; none lived in a dormitory.

Orange County	1996	1997	1998	1999	2000
Total Cases	34	23	23	16	22
Gender					
Male	21	12	10	9	11
Female	13	11	13	7	11
Unknown	0	0	0	0	0
Ethnicity					
White	21	15	10	9	10
Black	2	0	1	0	2
Hispanic	9	6	9	5	8
Southeast Asian	0	0	1	0	0
Other Asian	0	1	0	1	1
Other/Unknown	2	0	2	1	1
Age					
Under 1 year	4	3	2	1	2
1-4	2	3	5	0	2
5-9	2	1	2	1	1
10-14	7	2	3	2	0
15-19	7	2	4	2	4
20-24	2	6	0	3	1
25-34	2	1	0	2	4
35-44	2	1	2	2	2
45-54	4	1	1	1	0
55-64	2	2	2	0	1
65 & over	0	1	2	2	5
Unknown	0	0	0	0	0



Mumps

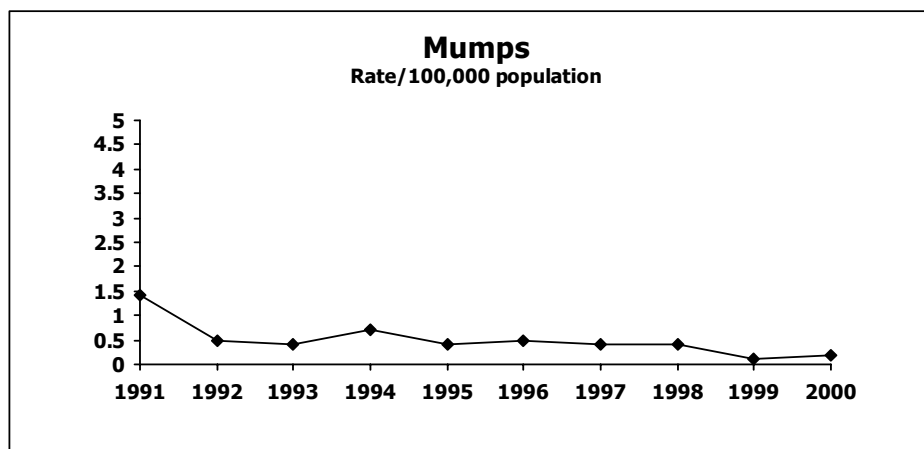
Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.5	0.4	0.4	0.1	0.2
California	0.6	0.5	0.3	0.3	0.3
United States	0.3	0.3	0.3	0.1	0.1
U.S. cases	751	683	666	387	338

Year 2000 Objective
Year 2010 Objective

<500 U.S. cases annually
No new cases

- The most recent peak in reported mumps cases was in 1989 and 1990 when 36 and 37 cases were reported, respectively.
- The vaccine currently in use was licensed in 1967. In 1997, a 2-dose schedule for the measles-mumps-rubella (MMR) vaccine was implemented as part of school entry requirements. Additionally, the occurrence of second doses given to college students has increased in recent years.
- Up to 20% of mumps infections are asymptomatic. Another 40-50% of those infected may have only nonspecific or primarily respiratory symptoms. 30-40% develop the classic symptom of mumps--parotitis (inflammation of the salivary gland(s)).
- Additional manifestations of mumps infection are meningitis and orchitis, though the latter is unusual.

Orange County	1996	1997	1998	1999	2000
Total Cases	14	11	10	4	5
Gender					
Male	8	6	5	3	4
Female	5	5	5	1	0
Unknown	1	0	0	0	1
Ethnicity					
White	2	5	2	0	0
Black	0	0	0	0	0
Hispanic	4	2	4	2	1
Southeast Asian	0	0	1	0	0
Other Asian	4	1	2	1	1
Other/Unknown	4	3	1	1	3
Age					
Under 1 year	0	1	0	0	0
1-4	0	3	2	1	1
5-9	5	4	3	1	2
10-14	1	0	2	2	0
15-19	3	0	0	0	0
20-24	1	0	0	0	0
25-34	3	1	1	0	0
35-44	0	1	2	0	1
45-54	0	1	0	0	0
55-64	0	0	0	0	0
65 & over	0	0	0	0	0
Unknown	1	0	0	0	0



Non-Gonococcal Urethritis

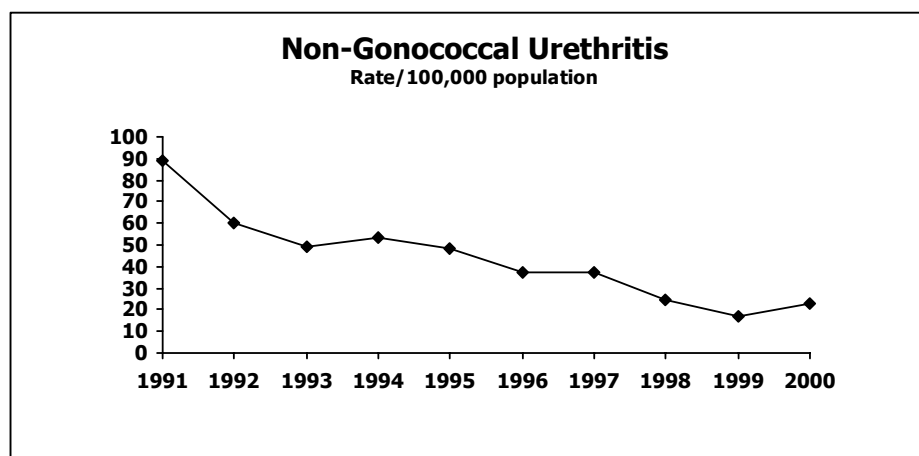
Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	37.7	37.6	24.2	17.2	22.6
California	37.4	35.8	30.5	24.3	27.5
United States	NA	NA	NA	NA	NA

Year 2000 Objective NA

Year 2010 Objective NA

- Prior to the separate reporting of *Chlamydia* infections in California in 1989, a significant proportion (23-55%) of nongonococcal urethritis (NGU) was due to *Chlamydia*. The decline in reported cases of NGU may reflect an increase in the specific diagnosis of *Chlamydia* in cases of urethritis.
- The availability of urine detection tests for *Chlamydia* played a role in the decline in reported NGU from 1997 to 1999. The increase in 2000 may be a reflection of a general increase in sexually transmitted diseases.
- According to the 1998 CDC STD Treatment Guidelines, *Ureaplasma urealyticum* and possibly *Mycoplasma genitalium* are implicated in up to 1/3 of non-Chlamydial NGU cases. *Trichomonas vaginalis* and herpes simplex virus also sometimes cause NGU.

Orange County	1996	1997	1998	1999	2000
Total Cases	998	1014	665	483	646
Gender					
Male	980	994	650	470	646
Female	18	20	15	13	0
Unknown	0	0	0	0	0
Ethnicity					
White	202	232	148	93	120
Black	84	95	44	28	33
Hispanic	673	624	427	330	413
Southeast Asian	1	1	0	0	1
Other Asian	13	22	12	13	20
Other/Unknown	25	40	34	19	59
Age					
Under 1 year	0	0	0	0	0
1-4	0	0	0	0	0
5-9	0	0	1	0	0
10-14	2	0	0	0	1
15-19	55	53	36	30	44
20-24	204	204	121	92	120
25-34	461	427	289	172	238
35-44	207	230	147	121	163
45-54	57	76	54	53	62
55-64	11	14	10	10	13
65 & over	1	9	5	3	4
Unknown	0	1	2	2	1



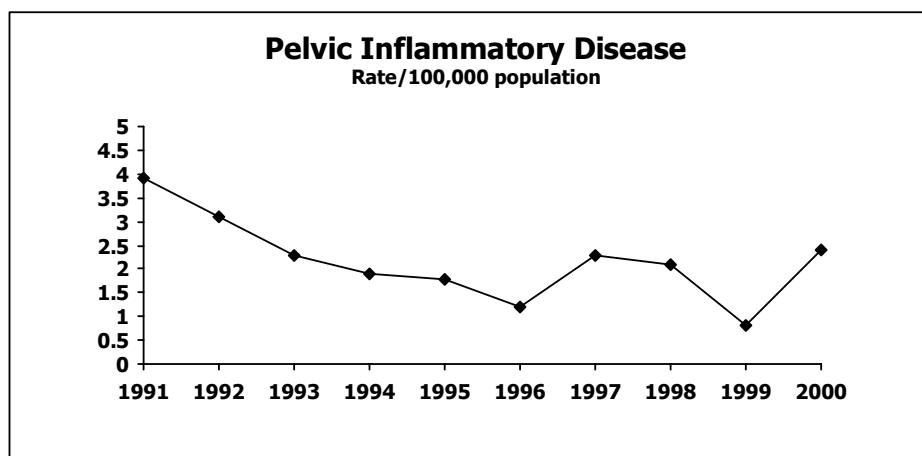
Pelvic Inflammatory Disease

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.2	2.3	2.1	0.8	2.4
California	15.0	12.3	9.7	8.1	7.4
United States	NA	NA	NA	NA	NA

Year 2000 Objective **NA**
Year 2010 Objective **5.0/100,000 population females age 15-44 years**

- Pelvic inflammatory disease (PID) comprises a spectrum of inflammatory disorders of the upper female genital tract.
- Sexually transmitted organisms, especially *Neisseria gonorrhoeae* and *Chlamydia trachomatis*, are implicated in most cases, although even microorganisms that are part of the normal vaginal flora can cause PID.
- The increase in 2000 may be a reflection of a general increase in sexually transmitted diseases.
- Underreporting is common because acute PID is difficult to diagnose, and no single historical, physical, or laboratory finding is both sensitive and specific.

Orange County	1996	1997	1998	1999	2000
Total Cases	32	62	59	23	68
Gender					
Male	0	0	0	0	0
Female	32	62	58	23	68
Unknown	0	0	1	0	0
Ethnicity					
White	10	10	12	6	20
Black	1	2	0	0	2
Hispanic	18	46	43	13	38
Southeast Asian	0	0	0	4	0
Other Asian	2	0	0	0	1
Other/Unknown	1	4	4	0	7
Age					
Under 1 year	0	0	0	0	1
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	0	0	0	0	5
15-19	2	12	2	4	26
20-24	5	13	11	5	7
25-34	17	23	28	10	12
35-44	7	13	15	3	16
45-54	0	1	2	1	1
55-64	1	0	1	0	0
65 & over	0	0	0	0	0
Unknown	0	0	0	0	0



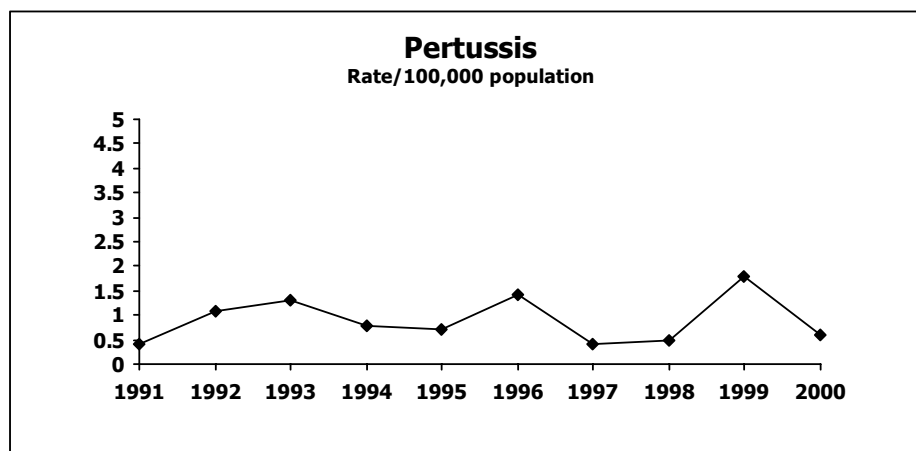
Pertussis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.4	0.4	0.5	1.8	0.6
California	2.4	1.5	3.2	3.4	1.9
United States	2.9	2.5	2.7	2.7	2.9
U.S. cases	7,796	6,564	7,405	7,288	7,867

Year 2000 Objective <1,000 U.S. cases annually
 Year 2010 Objective 2,000 cases (among children under 7 years of age)

- Pertussis (whooping cough) is caused by the bacterium *Bordetella pertussis*. It is transmitted primarily by airborne droplets produced by coughing or sneezing.
- A vaccine for pertussis has been available in the United States since the mid-1940s. In 1991, an acellular pertussis vaccine was licensed for the 4th and 5th doses of the vaccine series and in 1996 for the entire schedule. The acellular vaccines cause fewer serious side effects than the whole cell vaccines.
- Protection from vaccination lasts for 5-10 years. Recent studies suggest that pertussis is a common cause of cough illness lasting >7 days in adolescents and adults.
- Pertussis increased in the U.S. in the 1990s after reaching historic lows in the 1980s.

Orange County	1996	1997	1998	1999	2000
Total Cases	37	12	13	51	18
Gender					
Male	16	3	6	31	11
Female	21	9	7	20	7
Unknown	0	0	0	0	0
Ethnicity					
White	10	8	5	18	5
Black	1	0	0	1	0
Hispanic	22	2	8	30	13
Southeast Asian	0	0	0	0	0
Other Asian	3	0	0	0	0
Other/Unknown	1	2	0	2	0
Age					
Under 1 year	34	11	10	45	16
1-4	3	1	1	3	2
5-9	0	0	1	2	0
10-14	0	0	0	0	0
15-19	0	0	0	0	0
20-24	0	0	0	1	0
25-34	0	0	0	0	0
35-44	0	0	0	0	0
45-54	0	0	1	0	0
55-64	0	0	0	0	0
65 & over	0	0	0	0	0
Unknown	0	0	0	0	0



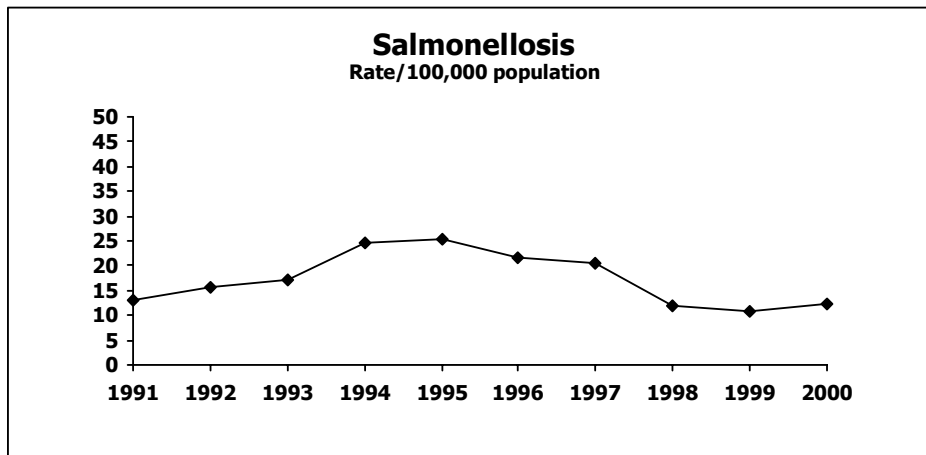
Salmonellosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	21.5	20.4	12.1	11.0	12.4
California	20.2	18.2	14.1	12.4	12.7
United States	17.2	15.7	16.2	14.9	14.1

Year 2000 Objective	16.0/100,000
Year 2010 Objectives	6.8/100,000

- During the early 1990's, *Salmonella* serotype Enteritidis (SE) became the leading serotype of salmonellosis, peaking at 51% of cases in 1995. Since then, both the total number of reported salmonellosis cases and the percent of cases due to SE have been on the decline. In 2000, SE accounted for 22% of cases and *Salmonella* serotype Typhimurium accounted for 9% of cases.
- In recent years, sprouts, cantaloupe, strawberries, and unpasteurized orange juice have been the sources of multi-state outbreaks of various *Salmonella* serotypes.
- In 2000, an outbreak of SE occurred in a group of co-workers and one worker's relative who shared egg-wrapped, pork-filled buns purchased from a bakery. Eggs used in non-commercial mayonnaise, and buns held at room temperature were implicated as a likely source of the outbreak.

Orange County	1996	1997	1998	1999	2000
Total Cases	568	551	334	309	353
Gender					
Male	264	259	162	155	161
Female	304	292	172	154	192
Unknown	0	0	0	0	0
Ethnicity					
White	291	252	176	138	172
Black	5	6	2	0	3
Hispanic	183	125	96	107	93
Southeast Asian	21	17	18	16	11
Other Asian	21	63	24	22	15
Other/Unknown	47	88	18	26	59
Age					
Under 1 year	45	36	25	24	25
1-4	88	87	53	67	55
5-9	57	56	40	38	46
10-14	23	22	14	18	18
15-19	27	23	16	7	22
20-24	29	31	14	13	14
25-34	93	75	44	36	51
35-44	69	62	31	31	42
45-54	47	53	37	33	25
55-64	41	35	21	20	26
65 & over	49	71	39	22	29
Unknown	0	0	0	0	0



Shigellosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	12.1	7.9	7.3	6.4	6.9
California	12.2	9.8	9.1	6.9	8.4
United States	9.8	8.6	8.7	6.4	8.4

Year 2000 Objective NA
Year 2010 Objective NA

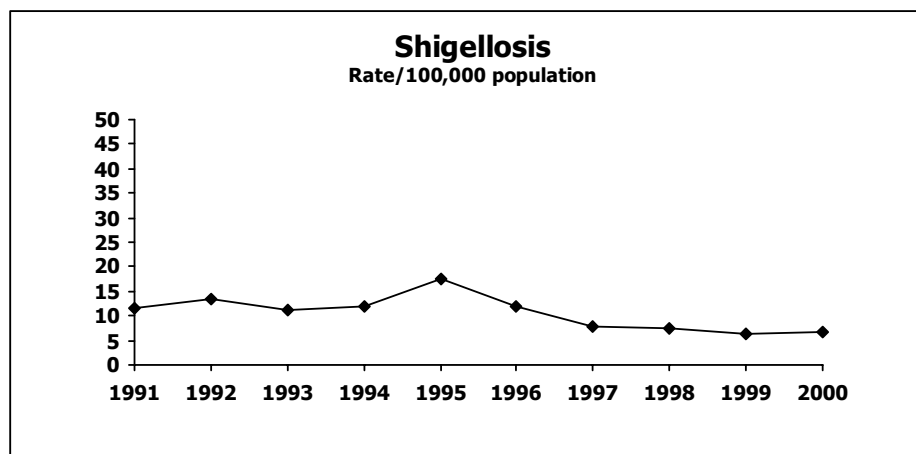
- A multi-state outbreak due to *Shigella sonnei* in January 2000 affected over 400 persons in at least 10 states, including more than 85 residents of Orange County. Illness was associated with consumption of a 5-layered bean dip.
- In 1999, a cluster of 6 confirmed and 6 suspect cases of *S. sonnei* occurred in residents of two group homes in Orange County.

- In 2000, *Shigella* isolates (N=197) consisted of the following species:

Species	Number	Percent
<i>S. sonnei</i>	137	69.6
<i>S. flexneri</i>	55	27.9
<i>S. boydii</i>	3	1.5
<i>S. dysenteriae</i> *	2	1.0

* One *S. dysenteriae* case traveled to Mexico; the other gave no history of travel.

Orange County	1996	1997	1998	1999	2000
Total Cases	321	212	202	180	197
Gender					
Male	146	104	96	91	84
Female	175	108	106	89	113
Unknown	0	0	0	0	0
Ethnicity					
White	106	51	56	32	69
Black	1	0	0	0	2
Hispanic	194	139	135	130	105
Southeast Asian	0	1	2	2	2
Other Asian	3	5	3	3	3
Other/Unknown	17	16	6	13	16
Age					
Under 1 year	5	3	2	3	3
1-4	113	73	65	54	53
5-9	59	42	41	42	34
10-14	9	9	15	17	14
15-19	9	3	4	7	4
20-24	8	6	10	11	11
25-34	44	34	13	17	20
35-44	37	15	24	15	30
45-54	17	14	13	5	15
55-64	10	6	7	6	4
65 & over	9	7	8	3	9
Unknown	1	0	0	0	0



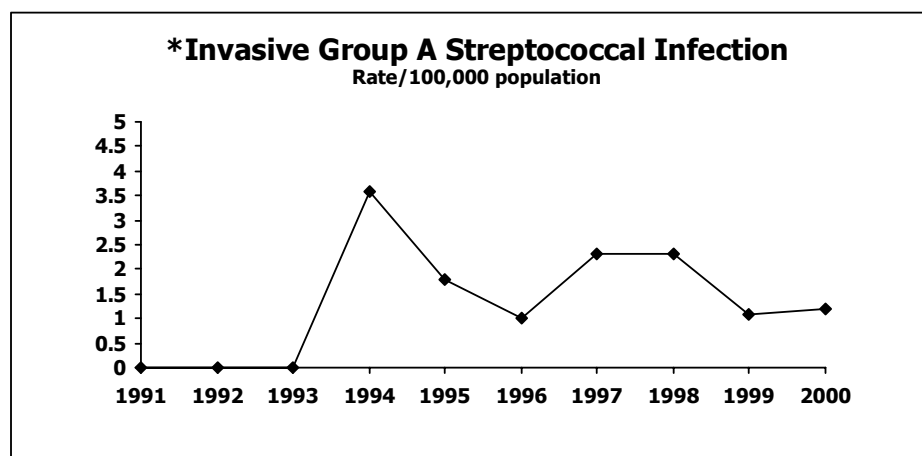
Streptococcal Infection (IGAS*)

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.0	2.3	2.3	1.1	1.2
California	<0.1	0.3	0.3	0.3	0.4
United States	NA	3.6	3.8	3.5	3.2

Year 2000 Objective NA
Year 2010 Objective NA

- In a 2 week period in the spring of 1994, 2 Orange County children died of invasive group A streptococcal (IGAS) infection following chickenpox. A third child with chickenpox and probable IGAS infection died during this same time period. At that time, Orange County Public Health instituted reporting of all IGAS infections. Because of publicity and case-finding efforts, the 92 cases reported in 1994 probably represent more complete reporting than in subsequent years, although prevalence of more virulent strains of IGAS could have played a role.
- A case-control study of IGAS following chickenpox with Los Angeles County and the California Department of Health Services found that temperature above 38.9°C (102°F) 3 or more days after onset of chickenpox lesions and any localized redness or swelling or complaint of pain should prompt parents to seek medical care.

Orange County	1996	1997	1998	1999	2000
Total Cases	26	62	63	31	33
Gender					
Male	13	44	35	16	19
Female	13	18	28	15	14
Unknown	0	0	0	0	0
Ethnicity					
White	6	34	39	12	18
Black	0	0	0	0	1
Hispanic	14	21	17	9	6
Southeast Asian	0	0	0	0	0
Other Asian	2	0	1	2	0
Other/Unknown	4	7	6	8	8
Age					
Under 1 year	0	1	2	0	2
1-4	9	12	6	3	4
5-9	1	9	9	4	1
10-14	2	2	4	1	0
15-19	0	2	2	2	1
20-24	0	2	3	1	1
25-34	3	1	5	2	2
35-44	4	15	5	5	3
45-54	3	5	8	4	7
55-64	3	4	7	3	3
65 & over	1	9	12	6	9
Unknown	0	0	0	0	0



Syphilis, Early

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	1.5	0.7	1.3	2.4	1.6
California	5.3	4.1	3.3	2.6	2.0
United States*	4.3	3.2	2.6	2.5	2.2

Year 2000 Objective NA

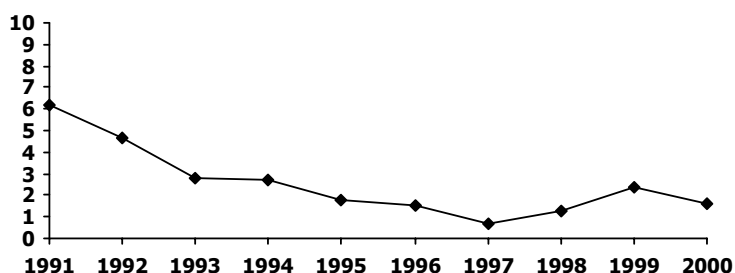
Year 2010 Objective NA

*Primary and secondary cases only

- Early syphilis includes primary, secondary and early latent stages of infection, essentially all syphilis with duration of less than 1 year.
- Early syphilis reached an all time low in 1997, then fluctuated at a somewhat higher level from 1998 to 2000.
- Of the 47 cases of early syphilis reported in 2000, 28 (60%) were primary (n=7) or secondary cases (n=21). This is a rate of 1.0 per 100,000 population. The 2000 United States rate for primary and secondary syphilis was 2.1 per 100,000. The national goal for syphilis elimination is to reduce primary and secondary syphilis to a rate of 0.2 per 100,000.

Orange County	1996	1997	1998	1999	2000
Total Cases	41	18	35	68	47
Gender					
Male	26	14	25	47	35
Female	15	4	10	21	11
Unknown	0	0	0	0	1
Ethnicity					
White	11	2	3	8	12
Black	8	6	5	4	1
Hispanic	21	10	27	51	29
Southeast Asian	0	0	0	0	0
Other Asian	1	0	0	2	1
Other/Unknown	0	0	0	3	4
Age					
Under 1 year	0	0	0	0	2
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	0	0	0	1	2
15-19	5	3	2	6	1
20-24	8	1	9	10	9
25-34	17	5	12	30	17
35-44	8	7	7	12	10
45-54	2	2	3	7	5
55-64	1	0	2	1	1
65 & over	0	0	0	1	0
Unknown	0	0	0	0	0

Syphilis, Total Early
Rate/100,000 population



Syphilis, Total, All Stages

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	8.5	7.3	6.5	8.4	7.5
California	13.9	11.8	8.9	8.6	9.9
United States	2.0	17.4	14.2	13.1	11.6

Year 2000 Objective NA
Year 2010 Objective NA

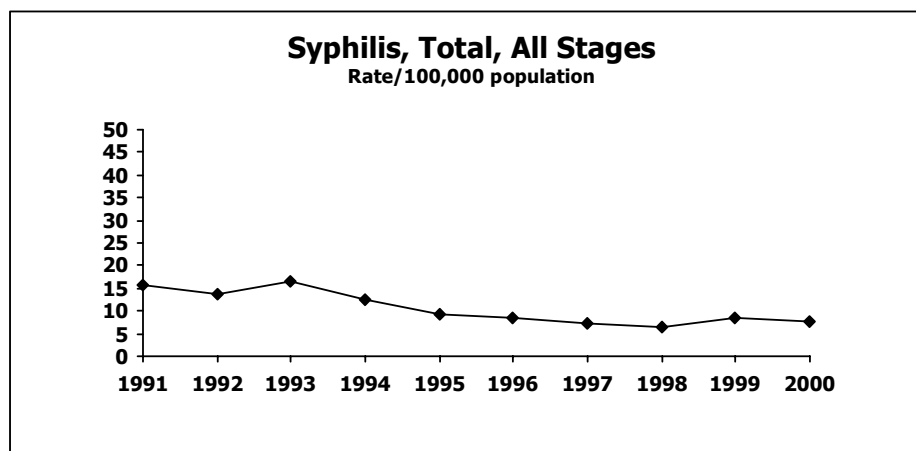
- Total syphilis cases in 2000 included:

Syphilis	# Cases
Congenital*	10
Primary	7
Secondary	21
Early Latent	19
Late/Late Latent	157
Neurological	1
Total	215

- The most recent peak in total syphilis in Orange County occurred in 1988, at a rate of 54 per 100,000.
- Syphilis elimination, defined as the absence of sustained transmission, is a national goal. A plan to eliminate syphilis from the United States is being developed by the Centers for Disease Control and Prevention (CDC).

*including presumptive cases

Orange County	1996	1997	1998	1999	2000
Total Cases	226	198	178	236	215
Gender					
Male	122	93	82	131	142
Female	104	105	96	105	72
Unknown	0	0	0	0	1
Ethnicity					
White	25	15	11	17	21
Black	17	18	6	7	3
Hispanic	142	134	130	165	151
Southeast Asian	NA	NA	NA	2	1
Other Asian	30	22	18	34	19
Other/Unknown	12	9	13	11	20
Age					
Under 1 year	14	19	8	4	8
1-4	0	0	0	0	1
5-9	0	0	0	0	0
10-14	1	0	0	1	3
15-19	8	10	10	9	3
20-24	24	12	24	27	21
25-34	90	85	49	68	73
35-44	42	47	44	54	49
45-54	24	19	23	39	30
55-64	10	3	12	19	16
65 & over	13	3	8	15	8
Unknown	0	0	0	0	3



Tuberculosis

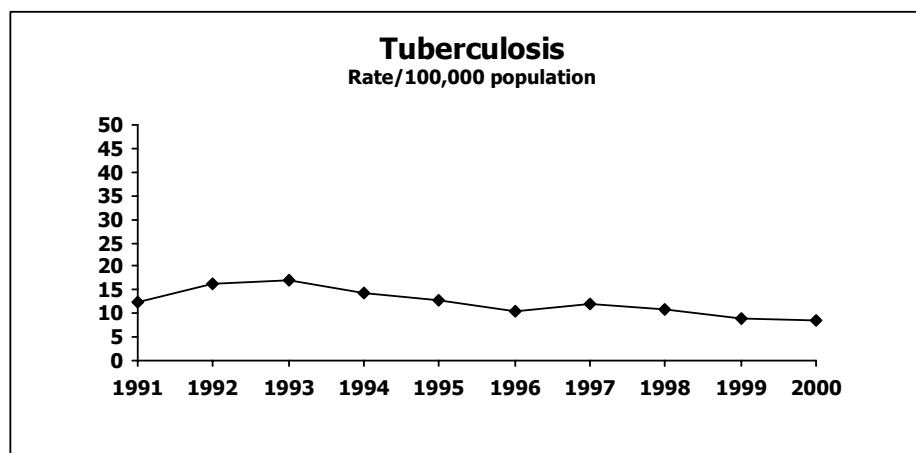
Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	10.3	12.2	10.8	8.8	8.6
California	13.3	12.4	11.6	9.7	9.7
United States	8.0	7.4	6.8	6.4	6.0

Year 2000 Objective	3.5/100,000
Year 2010 Objective	1.0/100,000

- Orange County reported 246 cases of tuberculosis (TB) in 2000. The same number of cases was reported in 1999. Case reports declined 17% since 1998 when 298 cases were reported.
- Three Orange County cities had a 2000 TB case rate higher than 15.0/100,000: Garden Grove (29.7), Westminster (21.7), and Santa Ana (15.4).
- As shown below, Orange County 2000 TB case rates per 100,000 exhibit significant variation by ethnicity:

Southeast Asian	68.3
Other Asian	19.7
Latino	10.1
African-American	11.0
Non-Hispanic White	1.4
- In 2000, 83% of all Orange County TB cases were among the foreign-born, including 38% from Vietnam, 30% from Mexico, and 12% from the Philippines. Only 43% of U.S. 2000 cases were foreign-born.

Orange County	1996	1997	1998	1999	2000
Total Cases	273	330	298	246	246
Gender					
Male	155	184	157	145	138
Female	118	146	141	101	108
Unknown	0	0	0	0	0
Ethnicity					
White	25	35	29	22	21
Black	5	1	0	5	5
Hispanic	71	101	104	85	85
Southeast Asian	109	127	98	81	83
Other Asian	62	66	67	45	52
Other/Unknown	1	0	0	8	0
Age					
Under 1 year	3	2	1	0	1
1-4	4	9	6	4	10
5-9	0	3	1	6	3
10-14	3	3	5	0	0
15-19	10	10	8	13	7
20-24	23	36	21	14	18
25-34	60	62	64	53	44
35-44	51	61	51	42	51
45-54	35	45	40	26	33
55-64	30	39	30	25	27
65 & over	54	60	71	63	52
Unknown	0	0	0	0	0



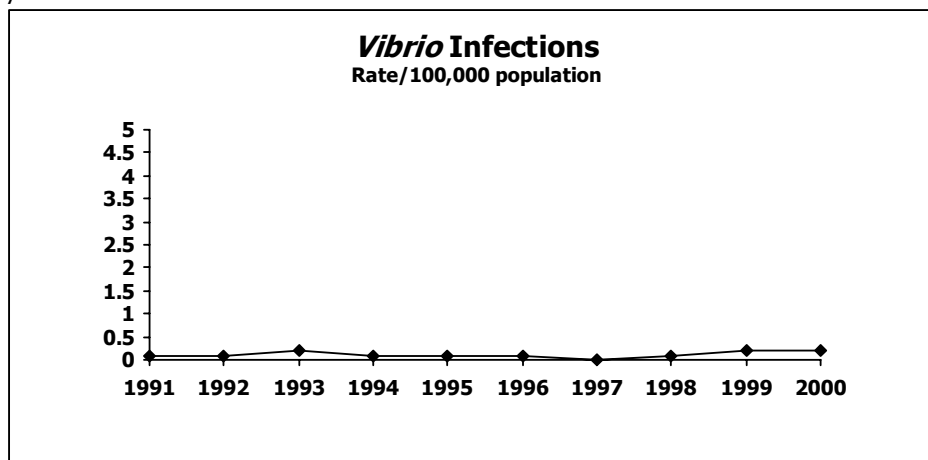
Vibrio Infections

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.1	0.0	0.1	0.2	0.2
California	0.2	0.4	0.4	0.2	0.2
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- Consumption of raw Gulf Coast oysters has regularly caused *Vibrio vulnificus* illnesses in California and other states. Since 1991, facilities selling Gulf Coast oysters have been required by law to post warning labels. In the past few years, the California Department of Health Services has also issued several warnings on consuming raw oysters from the Gulf Coast.
- Vibrio parahaemolyticus* outbreaks have also occurred since 1997, involving oysters from the Pacific Northwest and the northeast Atlantic Ocean.
- Of the 12 cases reported in 1999-2000, 6 had infection with *V. parahaemolyticus*, 3 with *V. cholerae* non-O1/non-O139, 2 with *V. vulnificus* (none in 2000), and 1 with *V. alginolyticus*.
- Among the 10 cases with a positive stool culture in 1999-2000, 9 had an investigation history: 5 of the 9 ate raw oysters, 3 had cooked seafood, and one had fish that was undercooked during the 7 days prior to illness.
- Two cases of *V. vulnificus* in 2000 died; both were young, Hispanic males who ate raw oysters.

Orange County	1996	1997	1998	1999	2000
Total Cases	2	0	4	6	6
Gender					
Male	1	0	3	5	4
Female	1	0	1	1	2
Unknown	0	0	0	0	0
Ethnicity					
White	1	0	3	3	1
Black	0	0	0	0	0
Hispanic	0	0	0	0	5
Southeast Asian	0	0	0	0	0
Other Asian	0	0	1	1	0
Other/Unknown	1	0	0	2	0
Age					
Under 1 year	0	0	0	0	0
1-4	0	0	0	0	0
5-9	0	0	0	0	0
10-14	1	0	0	0	0
15-19	0	0	0	2	0
20-24	1	0	0	0	1
25-34	0	0	1	1	1
35-44	0	0	2	0	3
45-54	0	0	1	1	0
55-64	0	0	0	2	0
65 & over	0	0	0	0	1
Unknown	0	0	0	0	0



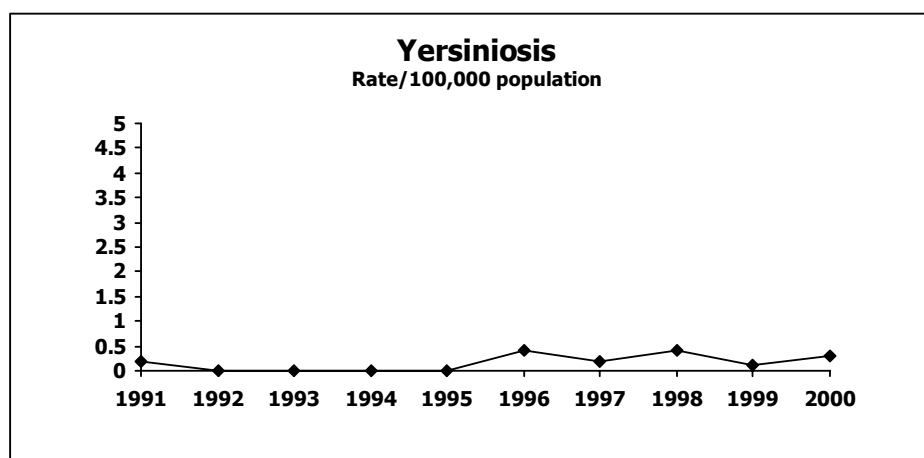
Yersiniosis

Rate per 100,000 population:	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
Orange County	0.4	0.2	0.4	0.1	0.3
California	0.1	0.3	0.4	0.3	0.3
United States	NA	NA	NA	NA	NA

Year 2000 Objective	NA
Year 2010 Objective	NA

- There are 2 *Yersinia* species that are pathogenic for humans, *Y. enterocolitica* and *Y. pseudotuberculosis*. Bloody diarrhea occurs in 10-30% of children infected with *Y. enterocolitica*. Joint pain occurs in about half of infected adults. Illness can also mimic acute appendicitis.
- Many laboratories do not routinely test for *Y. enterocolitica*. It is important to notify laboratory personnel when infection with this bacterium is suspected.
- In contrast to many other foodborne pathogens, *Y. enterocolitica* is able to multiply under refrigeration and low oxygen conditions.
- Three of the 4 cases reported in 1999, and all 8 cases reported in 2000 had infection with *Y. enterocolitica*.
- The Centers for Disease Control and Prevention (CDC) monitors the frequency of *Y. enterocolitica* infections through the foodborne disease active surveillance network (FoodNet). *Y. enterocolitica* is a relatively infrequent cause of diarrhea and abdominal pain. Approximately one culture-confirmed case per 100,000 population occurs each year in the U.S.

Orange County	1996	1997	1998	1999	2000
Total Cases	10	5	11	4	8
Gender					
Male	7	2	6	3	3
Female	3	3	5	1	5
Unknown	0	0	0	0	0
Ethnicity					
White	4	1	1	1	4
Black	0	0	0	0	0
Hispanic	2	2	2	2	0
Southeast Asian	0	0	0	0	0
Other Asian	0	0	0	0	0
Other/Unknown	4	2	8	1	4
Age					
Under 1 year	0	1	0	2	0
1-4	4	1	2	0	1
5-9	1	0	0	0	2
10-14	0	0	1	0	0
15-19	0	0	0	0	0
20-24	0	0	3	0	2
25-34	1	2	2	1	0
35-44	2	1	0	0	0
45-54	1	0	1	0	2
55-64	1	0	1	0	0
65 & over	0	0	1	1	1
Unknown	0	0	0	0	0



COUNTY OF ORANGE, CA · HEALTH CARE AGENCY · PUBLIC HEALTH
CONFIDENTIAL MORBIDITY REPORT

NOTE: For STD, Hepatitis, or TB, complete appropriate section below.

DISEASE BEING REPORTED: _____		If applicable, specimen date: <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px; vertical-align: middle;"></table> <small>MONTH DAY YEAR</small>		Source: _____	
Patient's Last Name <table border="1" style="width: 100%; height: 20px;"></table>		Social Security Number <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table>		Ethnicity (√ one) <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Non-Hispanic / Non-Latino	
First Name and Middle Name <table border="1" style="width: 100%; height: 20px;"></table>		Birth Date <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>		Age <table border="1" style="width: 40px; height: 20px;"></table>	
Address: Number, Street <table border="1" style="width: 100%; height: 20px;"></table>		Apt./Unit Number <table border="1" style="width: 100%; height: 20px;"></table>		Race (√ one) <input type="checkbox"/> African-American/Black <input type="checkbox"/> Asian/Pacific Islander (√ one) <input type="checkbox"/> Asian-Indian <input type="checkbox"/> Japanese <input type="checkbox"/> Cambodian <input type="checkbox"/> Korean <input type="checkbox"/> Chinese <input type="checkbox"/> Laotian <input type="checkbox"/> Filipino <input type="checkbox"/> Samoan <input type="checkbox"/> Guamanian <input type="checkbox"/> Vietnamese <input type="checkbox"/> Hawaiian <input type="checkbox"/> Other: _____ <input type="checkbox"/> Native American/Alaskan Native <input type="checkbox"/> White <input type="checkbox"/> Other: _____	
City/Town <table border="1" style="width: 100%; height: 20px;"></table>		State <table border="1" style="width: 40px; height: 20px;"></table>		Zip Code <table border="1" style="width: 100%; height: 20px;"></table>	
Area Code Home Telephone <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table>		Gender <input type="checkbox"/> M <input type="checkbox"/> F		Pregnant? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> UNK	
Area Code Work Telephone <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> - <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table>		Patient's Occupation/Setting <input type="checkbox"/> Food service <input type="checkbox"/> Day care <input type="checkbox"/> Correctional facility <input type="checkbox"/> Health care <input type="checkbox"/> School <input type="checkbox"/> Other: _____		Estimated Delivery Date <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>	
DATE OF ONSET <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>		Reporting Health Care Provider _____ Reporting Health Care Facility _____		REPORT TO: Orange County Public Health Fax: (714) 834-8196 Mail: P.O. Box 6128 Santa Ana, CA 92706-0128 Phone: (714) 834-8180	
DATE DIAGNOSED <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>		Address _____ City _____ State _____ Zip Code _____			
DATE OF DEATH <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>		Telephone Number () Fax () Submitted By _____ Date Submitted <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>			
SEXUALLY TRANSMITTED DISEASES (STD) Syphilis <input type="checkbox"/> Primary (lesion present) <input type="checkbox"/> Late latent > 1 year <input type="checkbox"/> Secondary <input type="checkbox"/> Late (tertiary) <input type="checkbox"/> Early latent < 1 year <input type="checkbox"/> Congenital <input type="checkbox"/> Latent (unknown duration) <input type="checkbox"/> Neurosyphilis				Syphilis Test Results <input type="checkbox"/> RPR Titer: _____ <input type="checkbox"/> VDRL Titer: _____ <input type="checkbox"/> FTA/MHA: <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> CSF-VDRL: <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Other: _____	
Gonorrhea <input type="checkbox"/> Urethral/Cervical <input type="checkbox"/> PID <input type="checkbox"/> Other: _____		Chlamydia <input type="checkbox"/> Urethral/Cervical <input type="checkbox"/> PID <input type="checkbox"/> Other: _____		<input type="checkbox"/> PID (Unknown Etiology) <input type="checkbox"/> Chancroid <input type="checkbox"/> Non-Gonococcal Urethritis	
STD TREATMENT INFORMATION <input type="checkbox"/> Treated (Drugs, Dosage, Route) Date Treatment Initiated <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small>				<input type="checkbox"/> Untreated <input type="checkbox"/> Will treat <input type="checkbox"/> Unable to contact patient <input type="checkbox"/> Refused treatment <input type="checkbox"/> Referred to: _____	
				VIRAL HEPATITIS <input type="checkbox"/> Hep A <input type="checkbox"/> Hep B <input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Hep C <input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Hep D (Delta) <input type="checkbox"/> Other: _____	
				Suspected Exposure Type <input type="checkbox"/> Blood transfusion <input type="checkbox"/> Other needle exposure <input type="checkbox"/> Sexual contact <input type="checkbox"/> Household contact <input type="checkbox"/> Child care <input type="checkbox"/> Other: _____	
<div style="background-color: black; color: white; padding: 10px; text-align: center;"> Please send copies of the hepatitis serologies (required for diagnosis) and liver enzymes (if done). </div>					
TUBERCULOSIS (TB) Status <input type="checkbox"/> Active Disease <input type="checkbox"/> Confirmed <input type="checkbox"/> Suspected <input type="checkbox"/> Infected, No Disease <input type="checkbox"/> Converter <input type="checkbox"/> Reactor Site(s) <input type="checkbox"/> Pulmonary <input type="checkbox"/> Extra-Pulmonary <input type="checkbox"/> Both					
Mantoux TB Skin Test Date Performed <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small> Results _____ mm <input type="checkbox"/> Pending <input type="checkbox"/> Not done		Bacteriology Date Specimen Collected <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small> Source: _____ Smear: <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Pending <input type="checkbox"/> Not done Culture: <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Pending <input type="checkbox"/> Not done Other test(s): _____		TB TREATMENT INFORMATION <input type="checkbox"/> Current Treatment <input type="checkbox"/> INH <input type="checkbox"/> RIF <input type="checkbox"/> PZA <input type="checkbox"/> EMB <input type="checkbox"/> Other: _____ Date Treatment Initiated <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small> <input type="checkbox"/> Untreated <input type="checkbox"/> Will treat <input type="checkbox"/> Unable to contact patient <input type="checkbox"/> Refused treatment <input type="checkbox"/> Referred to: _____	
Chest X-ray Date Performed <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> / <table border="1" style="display: inline-table; width: 40px; height: 20px;"></table> <small>MONTH DAY YEAR</small> <input type="checkbox"/> Normal <input type="checkbox"/> Pending <input type="checkbox"/> Not done <input type="checkbox"/> Cavitory <input type="checkbox"/> Abnormal/Noncavitory					
REMARKS <table border="1" style="width: 100%; height: 40px;"></table>					

Please report the following diseases/conditions, including probable cases, to Epidemiology & Assessment using the *specified method and time frame*.

E&A, P.O. Box 6128, Santa Ana, CA 92706-0128
Telephone: (714) 834-8180, Fax: (714) 834-8196

If a report is urgent and it is a holiday, weekend, or after regular work hours, please contact the public health official on call at (714) 628-7008.



REPORT IMMEDIATELY by telephone to Epidemiology.



Report within **ONE WORKING DAY OF** identification by telephone, fax, or mail to Epidemiology.



Report within **7 CALENDAR DAYS** of identification by telephone, fax, or mail to Epidemiology.



When **two (2) or more cases or suspected cases of foodborne illness** from separate households are suspected to have the **same source of illness**, please **REPORT IMMEDIATELY** by telephone to Epidemiology.

- | | |
|--|---|
| ⑦ AIDS [Please call, DO NOT FAX REPORT] | ① Meningitis—please specify etiology |
| ① Amebiasis | ☎ Meningococcal infections |
| ① Anisakiasis | ⑦ Mumps |
| ☎ Anthrax | ⑦ Non-Gonococcal Urethritis (excluding lab confirmed chlamydial infections) |
| ① Babesiosis | ☎ Outbreaks |
| ☎ Botulism (infant, foodborne, wound) | ☎ Paralytic Shellfish Poisoning |
| ☎ Brucellosis | ⑦ Pelvic Inflammatory Disease (PID) |
| ① Campylobacteriosis | ① Pertussis (Whooping Cough) |
| ⑦ Chancroid | ☎ Plague, human or animal |
| ⑦ Chlamydial infections | ① Poliomyelitis, paralytic |
| ☎ Cholera | ① Psittacosis |
| ☎ Ciguatera Fish Poisoning | ① Q Fever |
| ⑦ Coccidioidomycosis | ☎ Rabies, human or animal |
| ① Colorado Tick Fever | ① Relapsing Fever |
| ① Conjunctivitis, acute infections of the newborn—please specify etiology | ⑦ Reye Syndrome |
| ① Cryptosporidiosis | ⑦ Rheumatic Fever, acute |
| ⑦ Cysticercosis | ⑦ Rocky Mountain Spotted Fever |
| ☎ Dengue | ⑦ Rubella (German Measles) |
| ☎ Diarrhea of newborn, outbreaks only | ⑦ Rubella Syndrome, congenital |
| ☎ Diphtheria | ① Salmonellosis (other than Typhoid Fever) |
| ☎ Domoic Acid Poisoning (Amnesic Shellfish Poisoning) | ☎ Scombroid Fish Poisoning |
| ⑦ Echinococcosis (Hydatid Disease) | ① Shigellosis |
| ⑦ Ehrlichiosis | ☎ Smallpox (Variola) |
| ① Encephalitis—please specify etiology | ① Streptococcal infections (<i>invasive disease caused by group A streptococcus</i> ; outbreaks of any type; individual cases in food handlers and dairy workers only) |
| ☎ <i>Escherichia coli</i> O157:H7 infection | ① Swimmer's Itch (Schistosomal Dermatitis) |
| ★ Foodborne disease | ① Syphilis |
| ⑦ Giardiasis | ⑦ Taeniasis (request of local health officer) |
| ⑦ Gonococcal infections | ⑦ Tetanus |
| ① <i>Haemophilus influenzae</i> , invasive disease (persons under 30 years of age) | ⑦ Toxic Shock Syndrome |
| ☎ Hantavirus infections | ⑦ Toxoplasmosis |
| ☎ Hemolytic Uremic Syndrome | ① Trichinosis |
| ① Hepatitis A | ① Tuberculosis (including suspected cases) |
| ⑦ Hepatitis B (specify acute case or chronic) | ☎ Tularemia |
| ⑦ Hepatitis C (specify acute case or chronic) | ① Typhoid Fever, cases and carriers |
| ⑦ Hepatitis D (Delta) | ⑦ Typhus Fever |
| ⑦ Hepatitis, other, acute | ☎ Unusual diseases |
| ⑦ HIV infections [Please call, DO NOT FAX REPORT] | ☎ Varicella (deaths only) |
| ⑦ Kawasaki Syndrome (Mucocutaneous Lymph Node Syndrome) | ① <i>Vibrio</i> infections |
| ⑦ Legionellosis | ☎ Viral Hemorrhagic Fevers (e.g., Crimean-Congo, Ebola, Lassa, and Marburg viruses) |
| ⑦ Leprosy (Hansen's Disease) | ① Water-associated disease |
| ⑦ Leptospirosis | ☎ Yellow Fever |
| ① Listeriosis | ① Yersiniosis |
| ⑦ Lyme Disease | |
| ① Lymphocytic Choriomeningitis | |
| ① Malaria | |
| ① Measles (Rubeola) | |

Reportable Non-communicable Diseases/Conditions: Disorders characterized by lapses of consciousness, Alzheimer's disease and related disorders; cancer [except (1) basal and squamous skin cancer unless occurring on genitalia, and (2) carcinoma in-situ and CIN III of the cervix]; animal bites and scratches; child lead levels $\geq 10\mu\text{g/dL}$; suspected/confirmed pesticide-related illnesses; child and elder abuse; and domestic violence. To report non-communicable diseases/conditions, please see the "Reportable Diseases/Reporting Other Than Communicable Diseases" page on the website below.